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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS	:	LIEB et al.
SERIAL NO.	:	**Not yet assigned**
FILED	:	14 December 2001
FOR	:	ALKYL DIHALOGENATED PHENYL-SUBSTITUTED KETOENOLS USEFUL AS PESTICIDES AND HERBICIDES
ART UNIT	:	**1624**
EXAMINER	:	**Tamthom N. Truong**

14 December 2001

Hon. Commissioner of Patents
Washington, D.C. 20231

PRELIMINARY AMENDMENT

SIR:

Prior to examination, please amend the above-identified application as follows:

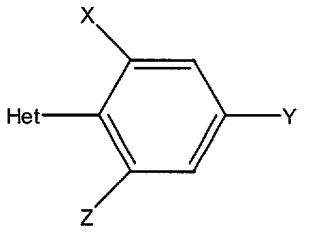
IN THE SPECIFICATION:

Please insert as the first sentence - - This application is a division of US Serial No. 09/404,424, filed September 29, 1999, now allowed, which is a divisional of U.S. Serial No. 08/945,664, filed October 31, 1997, now abandoned, which is a 371 of PCT/EP96/01781, filed April 29, 1996.- -

IN THE CLAIMS:

Please substitute claims 1-4 with amended claims 1-4 (see next page):

1. Compounds of the formula (I)



(I)

in which

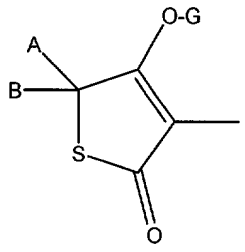
X represents halogen,

Y represents halogen or alkyl,

Z represents halogen or alkyl,

with the proviso that always one of the radicals Y and Z represents halogen and the other represents alkyl,

Het represents



(3),

in which

A represents hydrogen, or represents alkyl, alkenyl, alkoxyalkyl, polyalkoxyalkyl or alkylthioalkyl, each of which is optionally substituted by halogen, or represents in each case saturated or unsaturated and optionally substituted cycloalkyl or

heterocyclyl, or represents aryl, arylalkyl or hetaryl, each of which is optionally substituted by halogen, alkyl, halogenoalkyl, alkoxy, halogenoalkoxy, cyano or nitro,

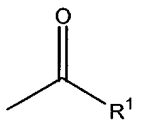
B represents hydrogen, alkyl or alkoxyalkyl, or

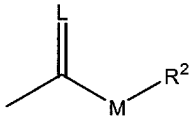
A and B together with the carbon atom to which they are bonded represent a saturated or unsaturated, optionally substituted carbocycle or heterocycle,

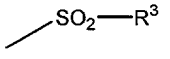
D represents hydrogen or an optionally substituted radical from the series consisting of alkyl, alkenyl, alkinyl, alkoxyalkyl, polyalkoxyalkyl, alkylthioalkyl, saturated or unsaturated cycloalkyl, saturated or unsaturated heterocyclyl, arylalkyl, aryl, hetarylalkyl or hetaryl, or

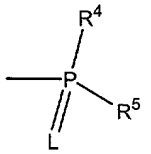
A and D together with the atoms to which they are bonded represent a saturated or unsaturated and optionally substituted carbocycle or heterocycle,

G represents hydrogen (a),

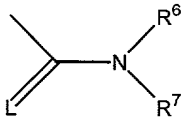


(b),


(c),


(d),


(e),

E (f) or


(g),

in which

E represents a metal ion equivalent or an ammonium ion,

L represents oxygen or sulphur,

M represents oxygen or sulphur,

R^1 represents alkyl, alkenyl, alkoxyalkyl, alkylthioalkyl or polyalkoxyalkyl, each of which is optionally substituted by halogen, or represents cycloalkyl or heterocyclyl, each of which is optionally substituted by halogen, alkyl or alkoxy, or represents in each case optionally substituted phenyl, phenylalkyl, hetaryl, phenoxyalkyl or hetaryloxyalkyl,

R^2 represents alkyl, alkenyl, alkoxyalkyl or polyalkoxyalkyl, each of which is optionally substituted by halogen, or represents in each case optionally substituted cycloalkyl, phenyl or benzyl,

R^3, R^4 and R^5 independently of one another represent alkyl, alkoxy, alkylamino, dialkylamino, alkylthio, alkenylthio or cycloalkylthio, each of which is optionally substituted by halogen, or in each case represent optionally substituted phenyl, benzyl, phenoxy or phenylthio,

R^6 and R^7 independently of one another represent hydrogen, or represent alkyl, cycloalkyl,

alkenyl, alkoxy or alkoxyalkyl, each of which is optionally substituted by halogen, or represent in each case optionally substituted phenyl or benzyl, or together with the N atom to which they are bonded represent an optionally substituted cycle which optionally contains oxygen or sulphur.

2. Compound of the formula (I) according to claim 1 in which

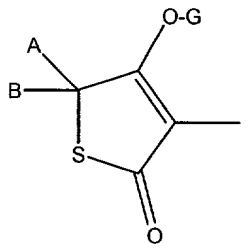
X represents halogen,

Y represents halogen or C_1-C_6-alkyl,

Z represents halogen or C_1-C_6-alkyl,

where always one of the substituents Y and Z represent halogen, while the other represents alkyl,

Het represents



(3),

A represents hydrogen, or represents C_1-C_{12}-alkyl, C_2-C_8-alkenyl, C_1-C_{10}-alkoxy-C_1-C_8-alkyl, poly-C_1-C_8-alkoxy-C_1-C_8-alkyl or C_1-C_{10}-alkylthio-C_1-C_6-alkyl, each of which is optionally substituted by halogen, or represents C_3-C_8-cycloalkyl which is optionally substituted by halogen, C_1-C_6-alkyl or C_1-C_6-alkoxy and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur, or represents phenyl, naphthyl, phenyl-C_1-C_6-alkyl or hetaryl having 5 or 6 ring atoms and one to three hetero atoms from the series consisting of oxygen, sulphur and nitrogen, in each case optionally substituted by halogen, C_1-C_6-alkyl, C_1-C_6-halogenoalkyl, C_1-C_6-alkoxy, C_1-C_6-halogenoalkoxy, cyano or nitro,

B represents hydrogen, C_1-C_{12}-alkyl or C_1-C_8-alkoxy-C_1-C_6-alkyl, or

A, B and the carbon atom to which they are bonded represent C_3-C_{10}-cycloalkyl or C_5-C_{10}-cycloalkenyl in each of which a methylene group is optionally replaced by oxygen or sulphur and which are optionally substituted by C_1-C_8-alkyl, C_3-C_{10}-

cycloalkyl, C_1-C_8-halogenoalkyl, C_1-C_8-alkoxy, C_1-C_8-alkylthio, halogen or phenyl, or

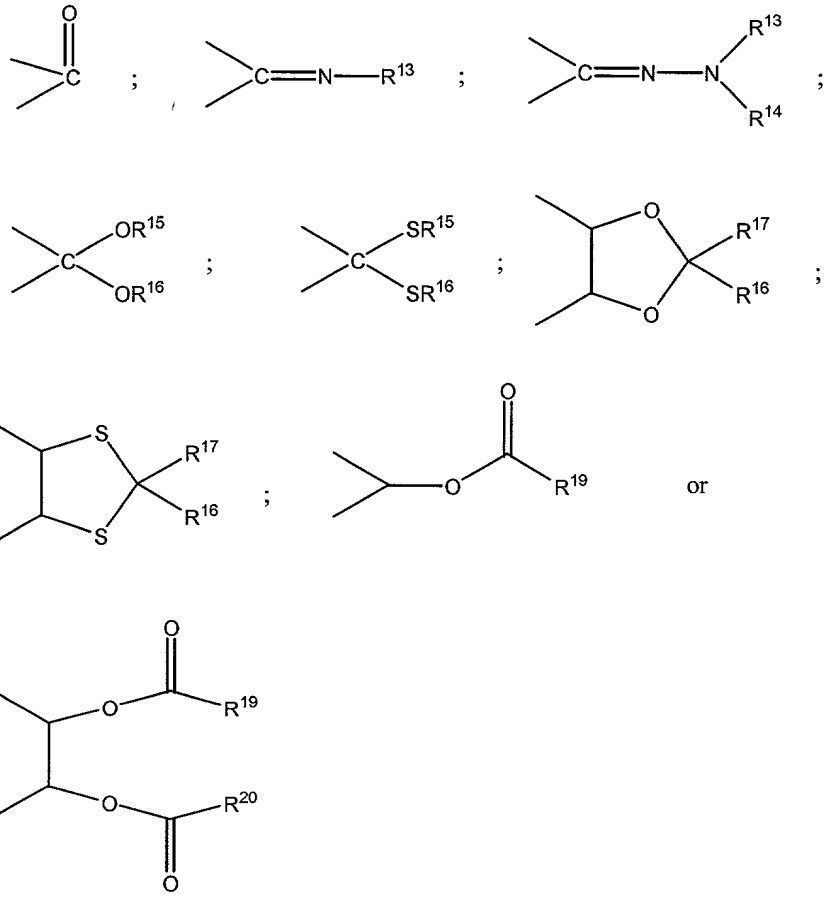
A, B and the carbon atom to which they are bonded represent C_5-C_6-cycloalkyl which is substituted by an alkylenediyl group which optionally contains one or two oxygen and/or sulphur atoms or by and alkylenedioxy or by an alkylenedithioyl group, this group, together with the carbon atom to which it is bonded forming a further five to eight-membered ring, or

A, B and the carbon atom to which they are bonded represent C_3-C_8-cycloalkyl or C_5-C_8-cycloalkenyl in which two substituents together with the carbon atoms to which they are bonded represent C_3-C_6-alkanediyl, C_3-C_6-alkenediyl or C_4-C_6-alkanedienediyl, each of which is optionally substituted by C_1-C_6-alkyl, C_1-C_6-alkoxy or halogen and in which in each case one methylene group is optionally replaced by oxygen or sulphur,

D represents hydrogen, C_1-C_{12}-alkyl, C_3-C_8-alkenyl, C_3-C_8-alkinyl, C_1-C_{10}-alkoxy-C_2-C_8-alkyl, poly-C_1-C_8-alkoxy-C_2-C_8-alkyl or C_1-C_{10}-alkylthio-C_2-C_8-alkyl, each of which is optionally substituted by halogen, or represents C_3-C_8-cycloalkyl which is optionally substituted by halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy or C_1-C_4-halogenoalkyl and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur, or represents phenyl, hetaryl having 5 to 6 ring atoms and one or two hetero atoms from the series consisting of oxygen, sulphur and nitrogen, phenyl-C_1-C_6-alkyl or hetaryl-C_1-C_6-alkyl having 5 to 6 ring atoms and one to two hetero atoms from the series consisting of oxygen, sulphur and nitrogen, in each case optionally substituted by halogen, C_1-C_6-alkyl, C_1-C_6-halogenoalkyl, C_1-C_6-alkoxy, C_1-C_6-halogenoalkoxy, cyano or nitro, or

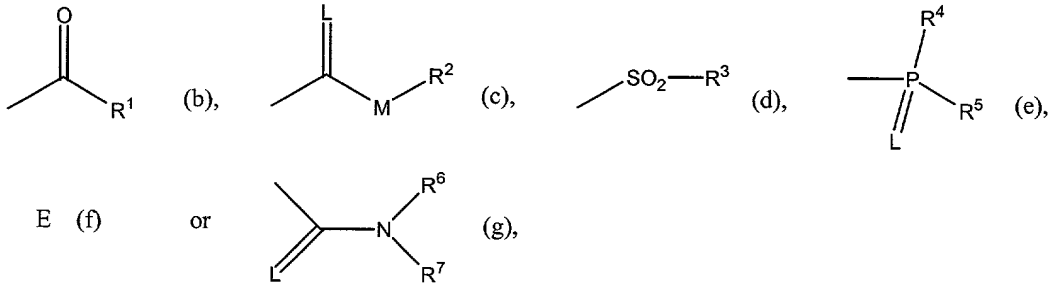
A and D together represent a C_3-C_6-alkanediyl, C_3-C_6-alkenediyl or C_4-C_6-alkanedienediyl group in each of which one methylene group is optionally replaced by oxygen or sulphur and which is in each case optionally substituted by halogen, hydroxyl, mercapto, or by C_1-C_{10}-alkyl, C_1-C_6-alkoxy, C_1-C_6-alkylthio, C_3-C_7-cycloalkyl, phenyl or benzyloxy, each of which is optionally substituted by halogen, or by further C_3-C_6-alkanediyl, C_3-C_6-alkenediyl or C_4-C_6-alkanedienediyl group which forms a fused ring and in each of which one methylene group is optionally replaced by oxygen or sulphur and which is optionally substituted by C_1-C_6-alkyl or in which two adjacent substituents together with the carbon atoms to which they are bonded optionally form a further saturated or unsaturated carbocycle having 5 or 6 ring atoms, or

A and D together represent a C_3-C_6-alkanediyl or C_3-C_6-alkenediyl group each of which one of the following groups



is optionally present;

G represents hydrogen (a),



E (f) or

(g),

in which

E represents a metal ion equivalent or an ammonium ion,

L represents oxygen or sulphur and

M represents oxygen or sulphur,

R^1 represents C_1-C_{20}-alkyl, C_2-C_{20}-alkenyl, C_1-C_8-alkoxy-C_1-C_8-alkyl, C_1-C_8-alkylthio-C_1-C_8-alkyl or poly-C_1-C_8-alkoxy-C_1-C_8-alkyl, each of which is optionally substituted by halogen, or represents C_3-C_8-cycloalkyl which is optionally substituted by halogen, C_1-C_6-alkyl or C_1-C_6-alkoxy and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur,

or represents phenyl which is optionally substituted by halogen, cyano, nitro, C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_6-halogenoalkyl, C_1-C_6-halogenoalkoxy, C_1-C_6-alkylthio or C_1-C_6-alkylsulphonyl,

or represents phenyl-C_1-C_6-alkyl which is optionally substituted by halogen, nitro, cyano, C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_6-halogenoalkyl or C_1-C_6-halogenoalkoxy,

or represents 5- or 6-membered hetaryl having one or two hetero atoms from the series consisting of oxygen, sulphur and nitrogen which is optionally substituted by halogen or C_1-C_6-alkyl,

or represents phenoxy-C_1-C_6-alkyl which is optionally substituted by halogen or C_1-C_6-alkyl,

or represents 5- or 6-memebered hetaryl-C_1-C_6-alkyl having one or two hetero atoms from the series consisting of oxygen, sulphur and nitrogen which is

optionally substituted by halogen, amino or C_1-C_6-alkyl,

R^2 represents C_1-C_{20}-alkyl, C_2-C_{20}-alkenyl, C_1-C_8-alkoxy-C_2-C_8-alkyl or poly-C_1-C_8-alkoxy-C_2-C_8-alkyl, each of which is optionally substituted by halogen,

or represents C_3-C_8-cycloalkyl which is optionally substituted by halogen, C_1-C_6-alkyl or C_1-C_6-alkoxy, or

represents phenyl or benzyl, each of which is optionally substituted by halogen, cyano, nitro, C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_6-halogenoalkyl, C_1-C_6-halogenoalkoxy,

R^3 represents C_1-C_8-alkyl which is optionally substituted by halogen, or represents phenyl or benzyl, each of which is optionally substituted by halogen, C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_4-halogenoalkyl, C_1-C_4-halogenoalkoxy, cyano or nitro,

R^4 and R^5 independently of one another represent C_1-C_8-alkyl, C_1-C_8-alkoxy, C_1-C_8-alkylamino, di-(C_1-C_8-alkyl)amino, C_1-C_8-alkylthio or C_2-C_8-alkenylthio, each of which is optionally substituted by halogen, or represent phenyl, phenoxy or phenylthio, each of which is optionally substituted by halogen, nitro, cyano, C_1-C_4-alkoxy, C_1-C_4-halogenoalkoxy, C_1-C_4-alkylthio, C_1-C_4-halogenoalkylthio, C_1-C_4-alkyl or C_1-C_4-halogenoalkyl,

R^6 and R^7 independently of one another represent hydrogen, or represent C_1-C_8-alkyl, C_3-C_8-cycloalkyl, C_1-C_8-alkoxy, C_3-C_8-alkenyl or C_1-C_8-alkoxy-C_2-C_8-alkyl, each of which is optionally substituted by halogen, or represent phenyl or benzyl, each of which is optionally substituted by halogen, C_1-C_8-alkyl, C_1-C_8-halogenoalkyl or C_1-C_8-alkoxy, or together represent a C_3-C_6-alkylene radical which is optionally substituted by C_1-C_6-alkyl and in which one methylene groups is optionally

replaced by oxygen or sulphur,

R^{13} represents hydrogen, or represents C_1-C_8-alkyl or C_1-C_8-alkoxy, each of which is optionally substituted by halogen, or represents C_3-C_8-cycloalkyl which is optionally substituted by halogen, C_1-C_4-alkyl or C_1-C_4-alkoxy and in which one methylene group is optionally replaced by oxygen or sulphur, or represents phenyl, phenyl-C_1-C_4-alkyl or phenyl-C_1-C_4-alkoxy, each of which is optionally substituted by halogen, C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_4-halogenoalkyl, C_1-C_4-halogenoalkoxy, nitro or cyano,

R^{14} represents hydrogen or C_1-C_8-alkyl or

R^{13} and R^{14} together represent C_4-C_6-alkanediyl,

R^{15} and R^{16} are identical or different and represent C_1-C_6-alkyl or

R^{15} and R^{16} together represent a C_2-C_4-alkanediyl radical which is optionally substituted by C_1-C_6-alkyl or by phenyl which is optionally substituted by halogen, C_1-C_4-alkyl, C_1-C_4-halogenoalkyl, C_1-C_4-alkoxy, C_1-C_4-halogenoalkoxy, nitro or cyano,

R^{17} and R^{18} independently of one another represent hydrogen, or represent C_1-C_8-alkyl which is optionally substituted by halogen, or represent phenyl which is optionally substituted by halogen, C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_4-halogenoalkyl, C_1-C_4-halogenoalkoxy, nitrogen or cyano, or

R^{17} and R^{18} together with the carbon atom to which they are bonded represent C_5-C_7-cycloalkyl which is optionally substituted by C_1-C_4-alkyl or C_1-C_4-alkoxy and in which one methylene group is optionally replaced by oxygen or sulphur and

R^{19} and R^{20} independently of one another represent C_1-C_{10}-alkyl, C_2-C_{10}-alkenyl, C_1-C_{10}-alkoxy, C_1-C_{10}-alkylamino, C_3-C_{10}-alkenylamino, di-(C_1-C_{10}-alkyl)amino or di-(C_3-C_{10}-alkenyl)amino.

3. Compound of the formula (I) according to claim 1 in which

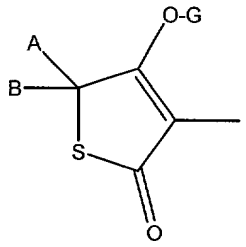
X represents fluorine, chlorine or bromine,

Y represents fluorine, chlorine, bromine or C_1-C_4-alkyl,

Z represents fluorine, chlorine, bromine or C_1-C_4-alkyl,

where always one of the substituents Y and Z represent halogen, while the other represents alkyl,

Het represents



(3),

A represents hydrogen, or represents C_1-C_{10}-alkyl, C_2-C_6-alkenyl, C_1-C_8-alkoxy-C_1-C_6-alkyl, poly-C_1-C_6-alkoxy-C_1-C_6-alkyl or C_1-C_8-alkylthio-C_1-C_6-alkyl, each of which is optionally substituted by fluorine or chlorine, or represents C_3-C_7-cycloalkyl which is optionally substituted by fluorine, chlorine, C_1-C_4-alkyl or C_1-C_4-alkoxy and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur, or represents phenyl,

furanyl, pyridyl, imidazolyl, triazolyl, pyrazolyl, indolyl, thiazolyl, thienyl or phenyl-C_1-C_4-alkyl each of which is optionally substituted by fluorine, chlorine, bromine, C_1-C_4-alkyl, C_1-C_4-halogenoalkyl, C_1-C_4-alkoxy, C_1-C_4-halogenoalkoxy, cyano or nitro,

B represents hydrogen, C_1-C_{10}-alkyl or C_1-C_6-alkoxy-C_1-C_4-alkyl, or

A, B and the carbon atom to which they are bonded represent C_3-C_8-cycloalkyl or C_5-C_8-cycloalkenyl in each of which a methylene group is optionally replaced by oxygen or sulphur and which are optionally substituted by C_1-C_6-alkyl, C_3-C_8-cycloalkyl, C_1-C_3-halogenoalkyl, C_1-C_6-alkoxy, C_1-C_6-alkylthio, fluorine, chlorine or phenyl, or

A, B and the carbon atom to which they are bonded represent C_5-C_6-cycloalkyl which is substituted by an alkylenediyl group which optionally contains one or two oxygen and/or sulphur atoms or by and alkylenedioxy or by an alkylenedithioyl group, this group, together with the carbon atom to which it is bonded forming a further five to seven-membered ring, or

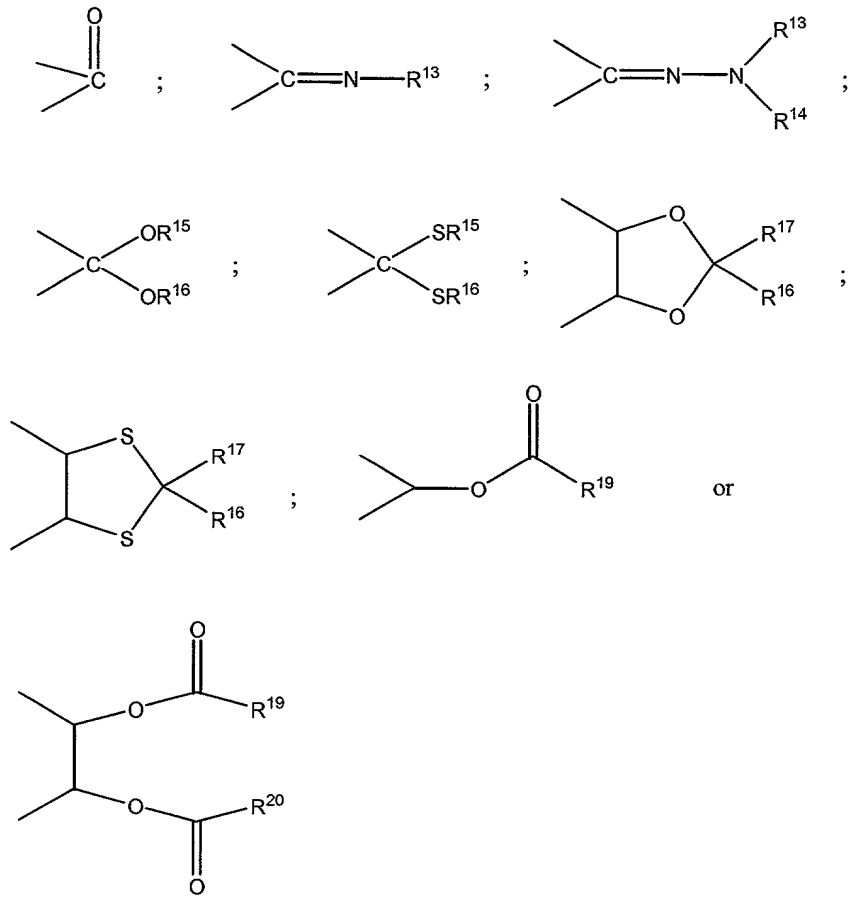
A, B and the carbon atom to which they are bonded represent C_3-C_6-cycloalkyl or C_5-C_6-cycloalkenyl in which two substituents together with the carbon atoms to which they are bonded represent C_3-C_5-alkanediyl, C_3-C_5-alkenediyl or butadienediyl, each of which is optionally substituted by C_1-C_5-alkyl, C_1-C_5-alkoxy, fluorine, chlorine or bromine and in which in each case one methylene group is optionally replaced by oxygen or sulphur,

D represents hydrogen, C_1-C_{10}-alkyl, C_3-C_6-alkenyl, C_3-C_6-alkinyl, C_1-C_8-alkoxy-C_2-C_6-alkyl, poly-C_1-C_6-alkoxy-C_2-C_6-alkyl or C_1-C_8-alkylthio-C_2-C_6-alkyl, each of which is optionally substituted by fluorine or chlorine, or represents C_3-C_7-

cycloalkyl which is optionally substituted by fluorine, chlorine, C_1-C_4-alkyl, C_1-C_4-alkoxy or C_1-C_2-halogenoalkyl and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur, or represents phenyl, furanyl, imidazolyl, pyridyl, thiazolyl, pyrazolyl, pyrimidyl, pyrrolyl, thienyl, triazolyl or phenyl-C_1-C_4-alkyl each of which is optionally substituted by fluorine, chlorine, bromine, C_1-C_4-alkyl, C_1-C_4-halogenoalkyl, C_1-C_4-alkoxy, C_1-C_4-halogenoalkoxy, cyano or nitro, or

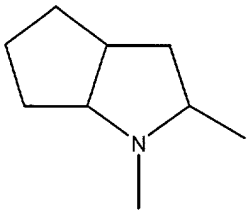
A and D together represent a C_3-C_5-alkanediyl or C_3-C_5-alkenediyl group in each of which one methylene group is optionally replaced by oxygen or sulphur and which is in each case optionally substituted by fluorine, chlorine, hydroxyl, mercapto, or by C_1-C_6-alkyl, C_1-C_4-alkoxy, C_1-C_4-alkylthio, C_3-C_6-cycloalkyl, phenyl or benzyloxy, each of which is optionally substituted by fluorine or chlorine, or

in which in each case one of the following groups

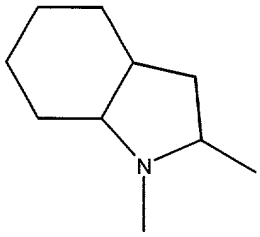


is optionally present;

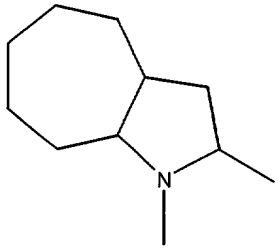
or A and D (in the case of the compounds of formula (I-1)) together with the atoms to which they are bonded represent one of the groups AD-1 to AD-27



AD-1



AD-2



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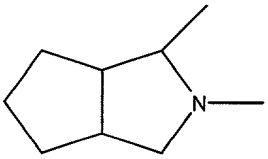
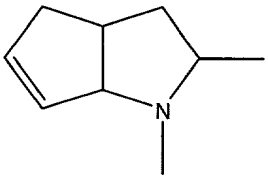
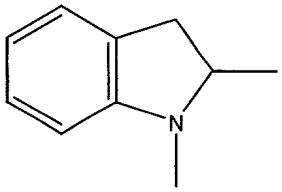


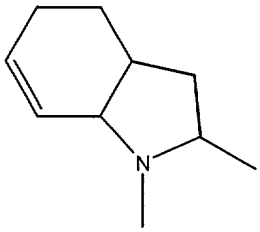
AD-4



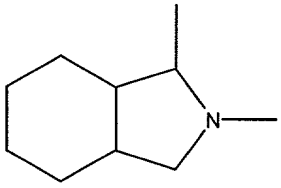
AD-5



AD-6



AD-7



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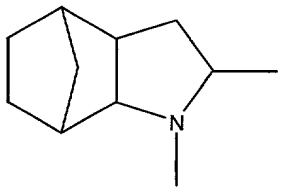

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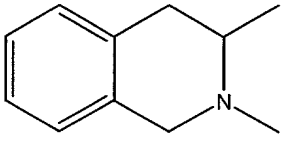

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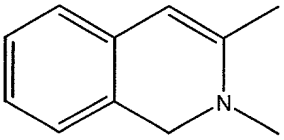

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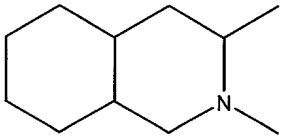

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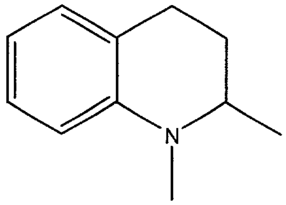

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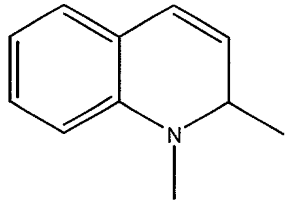

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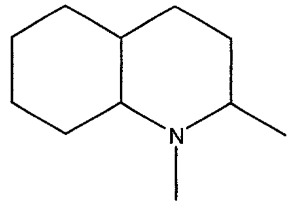

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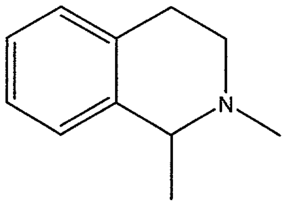

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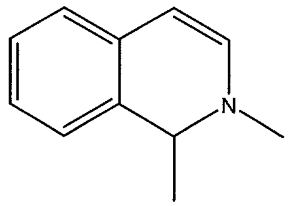

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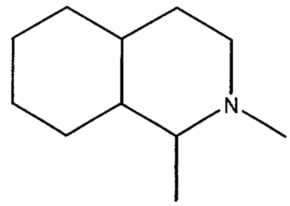

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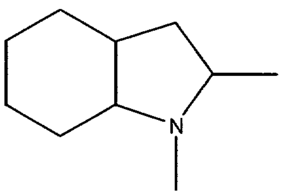

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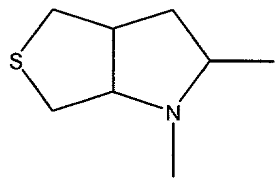

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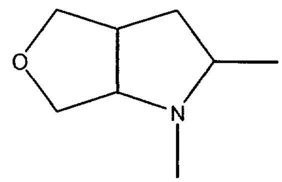

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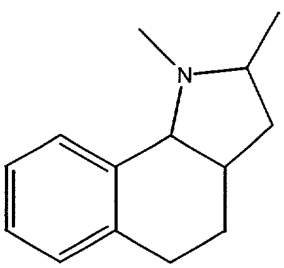

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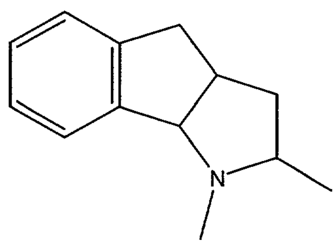

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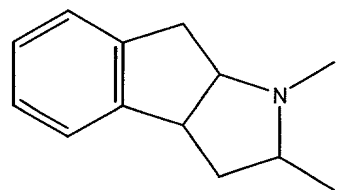

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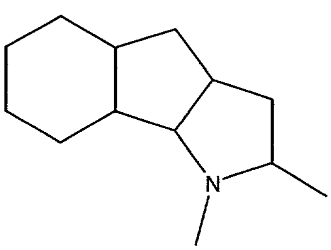

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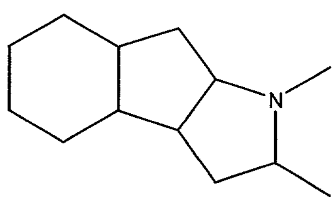

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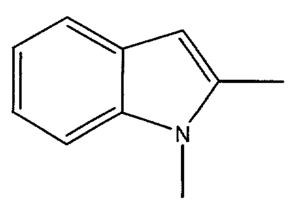
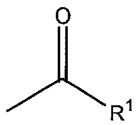
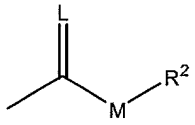
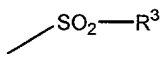
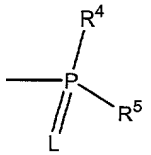
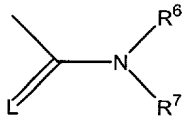


AD-27

G represents hydrogen (a),


(b),

(c),

(d),

(e),

E (f) or

(g),

in which

E represents a metal ion equivalent or an ammonium ion,

L represents oxygen or sulphur and

M represents oxygen or sulphur,

R^1 represents C_1-C_{16}-alkyl, C_2-C_{16}-alkenyl, C_1-C_6-alkoxy-C_1-C_6-alkyl, C_1-C_6-alkylthio-C_1-C_6-alkyl or poly-C_1-C_6-alkoxy-C_1-C_6-alkyl, each of which is optionally substituted by fluorine or chlorine, or represents C_3-C_7-cycloalkyl which is optionally substituted by fluorine, chlorine, C_1-C_5-alkyl or C_1-C_5-alkoxy and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur,

or represents phenyl which is optionally substituted by fluorine, chlorine, bromine, cyano, nitro, C_1-C_4-alkyl, C_1-C_4-alkoxy, C_1-C_3-halogenoalkyl, C_1-C_3-halogenoalkoxy, C_1-C_4-alkylthio or C_1-C_4-alkylsulphonyl,

or represents phenyl-C_1-C_4-alkyl which is optionally substituted by fluorine, chlorine, bromine, nitro, cyano, C_1-C_4-alkyl, C_1-C_4-alkoxy, C_1-C_3-halogenoalkyl

or C_1-C_3-halogenoalkoxy,

or represents pyrazolyl, thiazolyl, pyridyl, pyrimidyl, furanyl or thienyl, each of which is optionally substituted by fluorine, chlorine, bromine or C_1-C_4-alkyl,

or represents phenoxy-C_1-C_5-alkyl which is optionally substituted by fluorine, chlorine, bromine or C_1-C_4-alkyl,

or represents pyridyloxy-C_1-C_5-alkyl, pyrimidyloxy-C_1-C_5-alkyl or thiazolyloxy-C_1-C_5-alkyl, each of which is optionally substituted by fluorine, chlorine, bromine, amino or C_1-C_4-alkyl,

R^2 represents C_1-C_{16}-alkyl, C_2-C_{16}-alkenyl, C_1-C_6-alkoxy-C_2-C_6-alkyl or poly-C_1-C_6-alkoxy-C_2-C_6-alkyl, each of which is optionally substituted by fluorine or chlorine,

or represents C_3-C_7-cycloalkyl which is optionally substituted by fluorine, chlorine, C_1-C_4-alkyl or C_1-C_4-alkoxy, or

represents phenyl or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, cyano, nitro, C_1-C_3-alkyl, C_1-C_3-alkoxy, C_1-C_3-halogenoalkyl, C_1-C_3-halogenoalkoxy,

R^3 represents C_1-C_6-alkyl which is optionally substituted by fluorine or chlorine, or represents phenyl or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, C_1-C_5-alkyl, C_1-C_5-alkoxy, C_1-C_3-halogenoalkyl, C_1-C_3-halogenoalkoxy, cyano or nitro,

R^4 and R^5 independently of one another represent C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_6-

alkylamino, di-(C_1-C_6-alkyl)amino, C_1-C_6-alkylthio or C_3-C_4-alkenylthio, each of which is optionally substituted by fluorine or chlorine, or represent phenyl, phenoxy or phenylthio, each of which is optionally substituted by fluorine, chlorine, bromine, nitro, cyano, C_1-C_3-alkoxy, C_1-C_3-halogenoalkoxy, C_1-C_3-alkylthio, C_1-C_3-halogenoalkylthio, C_1-C_3-alkyl or C_1-C_3-halogenoalkyl,

R^6 and R^7 independently of one another represent hydrogen, or represent C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_6-alkoxy, C_3-C_6-alkenyl or C_1-C_6-alkoxy-C_2-C_6-alkyl, each of which is optionally substituted by fluorine or chlorine, or represent phenyl or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, C_1-C_5-alkyl, C_1-C_5-halogenoalkyl or C_1-C_5-alkoxy, or together represent a C_3-C_6-alkylene radical which is optionally substituted by C_1-C_4-alkyl and in which one methylene groups is optionally replaced by oxygen or sulphur,

R^{13} represents hydrogen, or represents C_1-C_6-alkyl or C_1-C_6-alkoxy, each of which is optionally substituted by fluorine or chlorine, or represents C_3-C_7-cycloalkyl which is optionally substituted by fluorine, C_1-C_2-alkyl or C_1-C_2-alkoxy and in which one methylene group is optionally replaced by oxygen or sulphur, or represents phenyl, phenyl-C_1-C_3-alkyl or phenyl-C_1-C_2-alkoxy, each of which is optionally substituted by fluorine, chlorine, bromine, C_1-C_5-alkyl, C_1-C_5-alkoxy, C_1-C_2-halogenoalkyl, C_1-C_2-halogenoalkoxy, nitro or cyano,

R^{14} represents hydrogen or C_1-C_6-alkyl or

R^{13} and R^{14} together represent C_4-C_6-alkanediyl,

R^{15} and R^{16} are identical or different and represent C_1-C_4-alkyl or

R^{15} and R^{16} together represent a C_2-C_3-alkanediyl radical which is optionally substituted

by C_1-C_4-alkyl or by phenyl which is optionally substituted by fluorine, chlorine, bromine, C_1-C_2-alkyl, C_1-C_2-halogenoalkyl, C_1-C_2-alkoxy, C_1-C_2-halogenoalkoxy, nitro or cyano,

R^{17} and R^{18} independently of one another represent hydrogen, or represent C_1-C_8-alkyl which is optionally substituted by fluorine or chlorine, or represent phenyl which is optionally substituted by fluorine, chlorine, bromine, C_1-C_4-alkyl, C_1-C_4-alkoxy, C_1-C_2-halogenoalkyl, C_1-C_2-halogenoalkoxy, nitrogen or cyano, or

R^{17} and R^{18} together with the carbon atom to which they are bonded represent C_5-C_6-cycloalkyl which is optionally substituted by C_1-C_3-alkyl or C_1-C_3-alkoxy and in which one methylene group is optionally replaced by oxygen or sulphur and

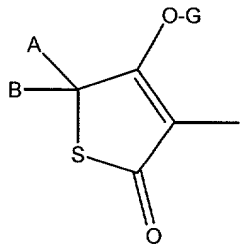
R^{19} and R^{20} independently of one another represent C_1-C_6-alkyl, C_2-C_6-alkenyl, C_1-C_6-alkoxy, C_1-C_6-alkylamino, C_3-C_6-alkenylamino, di-(C_1-C_6-alkyl)amino or di-(C_3-C_6-alkenyl)amino.

4. Compound of the formula (I) according to claim 1 in which

X represents fluorine, chlorine or bromine,
Y represents fluorine, chlorine, bromine, methyl, ethyl, n-propyl or iso-propyl,
Z represents fluorine, chlorine, bromine, methyl, ethyl, n-propyl or iso-propyl,

where always one of the substituents Y and Z represent halogen, while the other represents alkyl,

Het represents



(3),

A represents hydrogen, or represents C_1-C_8-alkyl, C_2-C_6-alkenyl, C_1-C_6-alkoxy-C_1-C_4-alkyl, poly-C_1-C_4-alkoxy-C_1-C_4-alkyl or C_1-C_6-alkylthio-C_1-C_4-alkyl, each of which is optionally substituted by fluorine or chlorine, or represents C_3-C_6-cycloalkyl which is optionally substituted by fluorine, chlorine, methyl or methoxy and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur, or represents phenyl, pyridyl or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, methyl, ethyl, n-propyl, iso-propyl, methoxy, ethoxy, trifluoromethyl, trifluoromethoxy, cyano or nitro,

B represents hydrogen, C_1-C_8-alkyl or C_1-C_4-alkoxy-C_1-C_2-alkyl, or

A, B and the carbon atom to which they are bonded represent C_3-C_8-cycloalkyl or C_5-C_8-cycloalkenyl in each of which a methylene group is optionally replaced by oxygen or sulphur and which are optionally substituted by methyl, ethyl, n-propyl, iso-propyl, butyl, iso-butyl, sec-butyl, tert-butyl, cyclohexyl, trifluoromethyl, methoxy, ethoxy, n-propoxy, iso-propoxy, butoxy, iso-butoxy, sec-butoxy, tert-butoxy, methylthio, ethylthio, fluorine, chlorine or phenyl, or

A, B and the carbon atom to which they are bonded represent C_5-C_6-cycloalkyl which is substituted by an alkylenediyl group which optionally contains one or two oxygen and/or sulphur atoms or by and alkylenedioxy group, this alkylenediyl or

alkylenedioxy group together with the carbon atom to which it is bonded forming a further five to six-membered ring, or

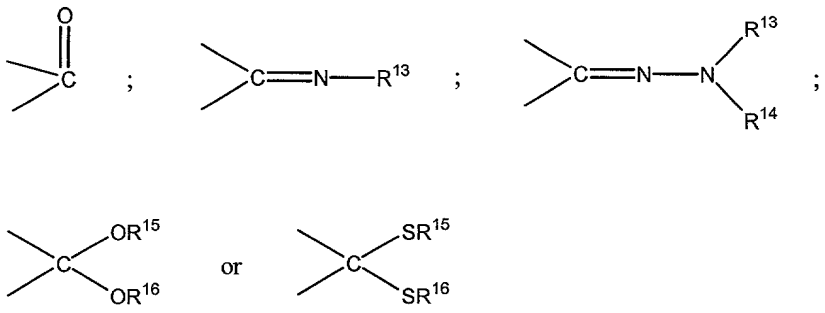
A, B and the carbon atom to which they are bonded represent C_3-C_6-cycloalkyl or C_5-C_6-cycloalkenyl in which two substituents together with the carbon atoms to which they are bonded represent C_3-C_4-alkanediyl, C_3-C_4-alkenediyl or butadienediyl, in each case one methylene group is optionally replaced by oxygen or sulphur,

D represents hydrogen, C_1-C_8-alkyl, C_3-C_4-alkenyl, C_3-C_4-alkinyl, C_1-C_6-alkoxy-C_2-C_4-alkyl, poly-C_1-C_4-alkoxy-C_2-C_4-alkyl or C_1-C_4-alkylthio-C_2-C_4-alkyl or C_3-C_6-cycloalkyl in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur, in each case optionally substituted by fluorine or chlorine, or represents phenyl, furanyl, pyridyl, thienyl, or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, methyl, ethyl, n-propyl, iso-propyl, methoxy, ethoxy, trifluoromethyl, trifluoromethoxy, cyano or nitro,

or

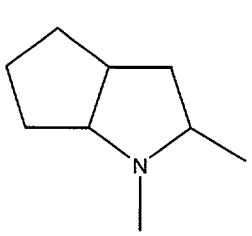
A and D together represent a C_3-C_5-alkanediyl or C_3-C_5-alkenediyl group in each of which one methylene group is optionally replaced by oxygen or sulphur and which are optionally substituted by fluorine, chlorine, hydroxyl, mercapto, or by C_1-C_6-alkyl, C_1-C_4-alkoxy, C_1-C_4-alkylthio, C_3-C_6-cycloalkyl, phenyl or benzyloxy, each of which is optionally substituted by fluorine or chlorine, or

in which in each case one of the following groups

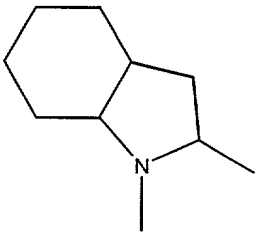


is optionally present;

or A and D (in the case of the compounds of formula (I-1)) together with the atoms to which they are bonded represent one of the following groups:



AD-1



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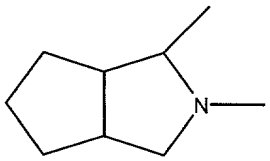
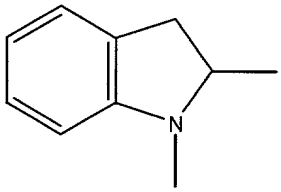


AD-4



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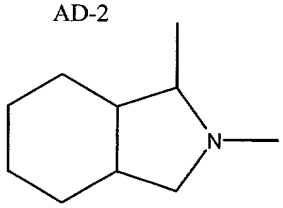

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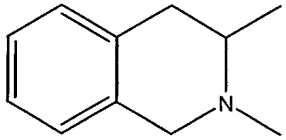

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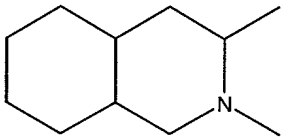

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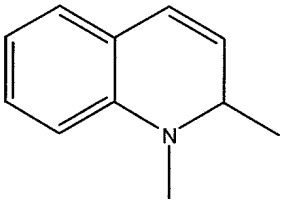

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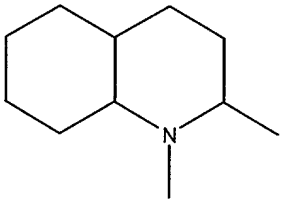

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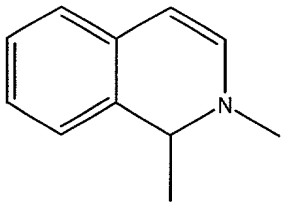

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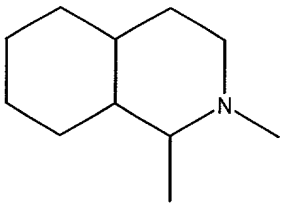

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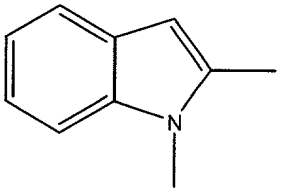
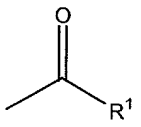
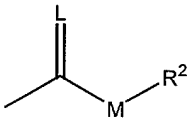


AD-27

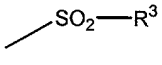
G represents hydrogen (a),



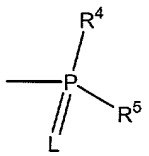
(b),



(c),

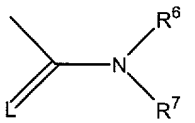


(d),



(e),

E (f) or



(g),

in which

E represents a metal ion equivalent or an ammonium ion,

L represents oxygen or sulphur and

M represents oxygen or sulphur,

R^1 represents C_1-C_{14}-alkyl, C_2-C_{14}-alkenyl, C_1-C_4-alkoxy-C_1-C_6-alkyl, C_1-C_4-alkylthio-C_1-C_6-alkyl or poly-C_1-C_4-alkoxy-C_1-C_4-alkyl, each of which is optionally substituted by fluorine or chlorine, or represents C_3-C_6-cycloalkyl which is optionally substituted by fluorine, chlorine, methyl, ethyl, n-propyl, iso-propyl, b-butyl, i-butyl, tert-butyl, methoxy, ethoxy, n-propoxy or iso-propoxy and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur,

or represents phenyl which is optionally substituted by fluorine, chlorine, bromine, cyano, nitro, methyl, ethyl, n-propyl, i-propyl, methoxy, ethoxy, trifluoromethyl, trifluoromethoxy, methylthio, ethylthio, methylsulphonyl or ethylsulphonyl,

or represents benzyl which is optionally substituted by fluorine, chlorine, bromine, methyl, ethyl, n-propyl, i-propyl, methoxy, ethoxy, trifluoromethyl or trifluoromethoxy,

or represents furanyl, thienyl or pyridyl, each of which is optionally substituted by fluorine, chlorine, bromine, methyl or ethyl,

or represents phenoxy-C_1-C_4-alkyl which is optionally substituted by fluorine, chlorine, methyl or ethyl, or

represents pyridyloxy-C_1-C_4-alkyl, pyrimidyloxy-C_1-C_4-alkyl or thiazolyloxy-C_1-C_4-alkyl, each of which is optionally substituted by fluorine, chlorine, bromine, methyl or ethyl,

R^2 represents C_1-C_{14}-alkyl, C_2-C_{14}-alkenyl, C_1-C_4-alkoxy-C_2-C_6-alkyl or poly-C_1-C_4-alkoxy-C_2-C_6-alkyl, each of which is optionally substituted by fluorine or chlorine,

or represents C_3-C_6-cycloalkyl which is optionally substituted by fluorine, chlorine, cyano, nitro, methyl, ethyl, n-propyl, iso-propyl or methoxy, ethoxy, trifluoromethyl or trifluoromethoxy, or

represents phenyl or benzyl, each of which is optionally substituted by fluorine, chlorine, methyl, ethyl, n-propyl, iso-propyl or methoxy, cyano, nitro, ethoxy, trifluoromethyl or trifluoromethoxy,

R^3 represents methyl, ethyl, propyl or isopropyl, each of which is optionally substituted by fluorine or chlorine, or represents phenyl or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, methyl, ethyl, propyl, iso-propyl, tert-butyl, methoxy, ethoxy, isopropoxy, tert-butoxy, trifluoromethyl, trifluoromethoxy, cyano or nitro,

R^4 and R^5 independently of one another represent C_1-C_4-alkyl, C_1-C_4-alkoxy, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino or C_1-C_4-alkylthio, each of which is optionally substituted by fluorine or chlorine, or represent phenyl, phenoxy or phenylthio, each of which is optionally substituted by fluorine, chlorine, bromine, nitro, cyano, methyl, methoxy, trifluoromethyl or trifluoromethoxy,

R^6 and R^7 independently of one another represent hydrogen, or represent C_1-C_4-alkyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_3-C_4-alkenyl or C_1-C_4-alkoxy-C_2-C_4-alkyl, each of which is optionally substituted by fluorine or chlorine, or represent phenyl or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, methyl, methoxy or trifluoromethyl, or together represent a C_5-C_6-alkylene radical which is optionally substituted by methyl or ethyl and in which one methylene groups is optionally replaced by oxygen or sulphur,

R^{13} represents hydrogen, or represents C_1-C_4-alkyl or C_1-C_4-alkoxy, each of which is optionally substituted by fluorine or chlorine, or represents C_3-C_6-cycloalkyl which is optionally substituted by fluorine or chlorine, or represents C_3-C_6-cycloalkyl, or represents phenyl, phenyl-C_1-C_2-alkyl or benzyloxy, each of which is optionally substituted by fluorine, chlorine, bromine, methyl, ethyl, iso-propyl, tert-butyl, methoxy, ethoxy, iso-propoxy, tert-butoxy, trifluoromethyl, trifluoromethoxy, nitro or cyano,

R^{14} represents hydrogen or C_1-C_4-alkyl, or

R^{13} and R^{14} together represent C_4-C_6-alkanediyl,

R^{15} and R^{16} are identical or different and represent methyl or ethyl, or

R^{15} and R^{16} together represent a C_2-C_3-alkanediyl radical which is optionally substituted by methyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl or tert-butyl, or by phenyl which is optionally substituted by fluorine, chlorine, methoxy, trifluoromethyl, trifluoromethoxy, nitro or cyano.

Please cancel claims 6 - 21.

Please add new claims 22 - 26:

22. A pesticidal composition comprising a pesticidally effective amount of at least one compound according to claim 1 and an extender or surface-active agent or mixture thereof.

23. A herbicidal composition comprising a herbicidally effective amount of at least one compound according to claim 1 and an extender or surface-active agent or mixture thereof.

24. A method of combatting pests comprising applying to pests and/or their environment a pesticidally effective amount of at least one compound according to claim 1.

25. A method of combatting weeds comprising applying to weeds and/or their environment a herbicidally effective amount of at least one compound according to claim 1.

26. A process for preparing a pesticidal composition or a herbicidal composition, said process comprising mixing an effective amount therefor of at least one compound according to claim 1 with an extender or surface-active agent or mixture thereof.

REMARKS

Claims 1-4 have been amended to elect a species not previously examined - see original restriction requirement of parent application 08/945,664, Paper No. 5 (dated 28 September 1998).

Claims 22-26 have been added as claims which are more in compliance with U.S. practice and replace original claims 17-21; no change in scope is intended.

It is believed that no new matter has been added. Claims 1-5 and 22-26 are now pending.

Early and favorable action is earnestly solicited.

Respectfully submitted,
NORRIS McLAUGHLIN & MARCUS, P.A.

Bayer 9962.3-HCL
Le A 31-023 US-03

By *Howard C. Lee*
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New York, New York 10017
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CERTIFICATE OF MAILING

I hereby certify that the foregoing Preliminary Amendment is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Hon. Assistant Commissioner for Patents, Washington, D.C. 20231, on the date indicated below:

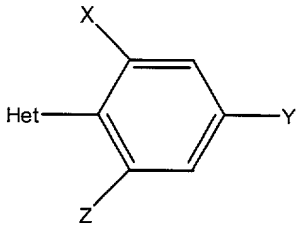
Date: **14 December 2001**

By *Howard C. Lee*
Howard C. Lee

COPY OF CLAIMS SHOWING AMENDMENTS

(Claims 1-5 and 22-26 are now pending)

1. Compounds of the formula (I)



(I)

in which

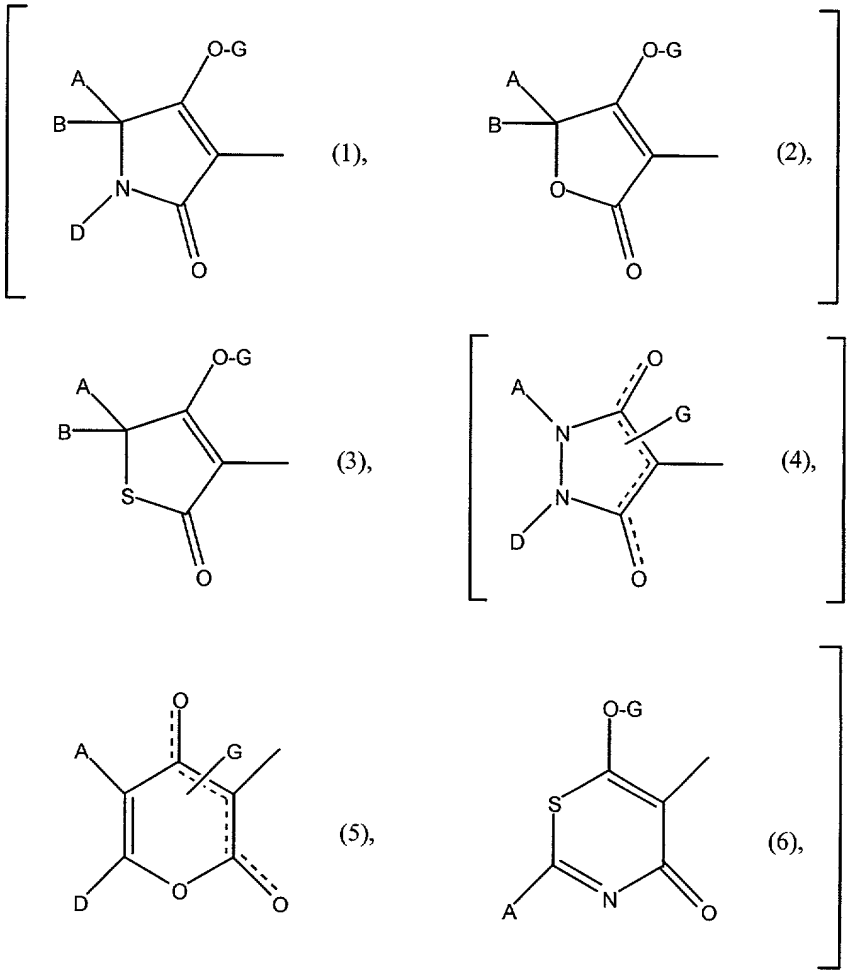
X represents halogen,

Y represents halogen or alkyl,

Z represents halogen or alkyl,

with the proviso that always one of the radicals Y and Z represents halogen and the other represents alkyl,

Het represents **[one of the groups]**



in which

A represents hydrogen, or represents alkyl, alkenyl, alkoxyalkyl, polyalkoxyalkyl or alkylthioalkyl, each of which is optionally substituted by halogen, or represents in each case saturated or unsaturated and optionally substituted cycloalkyl or heterocyclyl, or represents aryl, arylalkyl or hetaryl, each of which is optionally substituted by halogen, alkyl, halogenoalkyl, alkoxy, halogenoalkoxy, cyano or nitro,

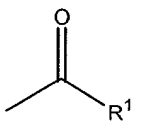
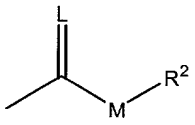
B represents hydrogen, alkyl or alkoxyalkyl, or

A and B together with the carbon atom to which they are bonded represent a saturated or unsaturated, optionally substituted carbocycle or heterocycle,

D represents hydrogen or an optionally substituted radical from the series consisting of alkyl, alkenyl, alkinyl, alkoxyalkyl, polyalkoxyalkyl, alkylthioalkyl, saturated or unsaturated cycloalkyl, saturated or unsaturated heterocyclyl, arylalkyl, aryl, hetarylalkyl or hetaryl, or

A and D together with the atoms to which they are bonded represent a saturated or unsaturated and optionally substituted carbocycle or heterocycle,

G **[in the event that Het represents one of the radicals (1), (2), (3), (5) or (6), represents hydrogen (a) or, in the event that Het represents one of the radicals (1), (2), (3), (4), (5) or (6), represents one of the groups]** ***represents hydrogen (a),***


(b),

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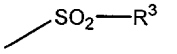
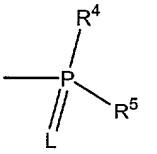
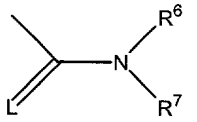

(d),

(e),

E (f) or

(g),

in which

E represents a metal ion equivalent or an ammonium ion,

L represents oxygen or sulphur,

M represents oxygen or sulphur,

R^1 represents alkyl, alkenyl, alkoxyalkyl, alkylthioalkyl or polyalkoxyalkyl, each of

which is optionally substituted by halogen, or represents cycloalkyl or heterocyclyl, each of which is optionally substituted by halogen, alkyl or alkoxy, or represents in each case optionally substituted phenyl, phenylalkyl, hetaryl, phenoxyalkyl or hetaryloxyalkyl,

R^2 represents alkyl, alkenyl, alkoxyalkyl or polyalkoxyalkyl, each of which is optionally substituted by halogen, or represents in each case optionally substituted cycloalkyl, phenyl or benzyl,

R^3, R^4 and R^5 independently of one another represent alkyl, alkoxy, alkylamino, dialkylamino, alkylthio, alkenylthio or cycloalkylthio, each of which is optionally substituted by halogen, or in each case represent optionally substituted phenyl, benzyl, phenoxy or phenylthio,

R^6 and R^7 independently of one another represent hydrogen, or represent alkyl, cycloalkyl,

alkenyl, alkoxy or alkoxyalkyl, each of which is optionally substituted by halogen, or represent in each case optionally substituted phenyl or benzyl, or together with the N atom to which they are bonded represent an optionally substituted cycle which optionally contains oxygen or sulphur.

2. Compound of the formula (I) according to claim 1 in which

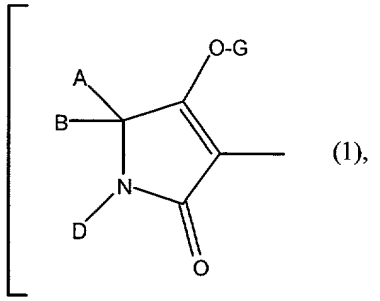
X represents halogen,

Y represents halogen or C_1-C_6-alkyl,

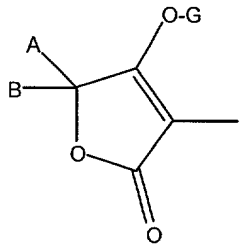
Z represents halogen or C_1-C_6-alkyl,

where always one of the substituents Y and Z represent halogen, while the other represents alkyl,

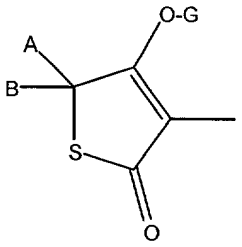
Het represents **[one of the groups]**



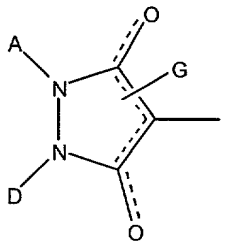
(1),



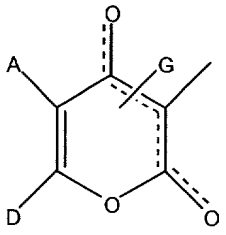
(2),



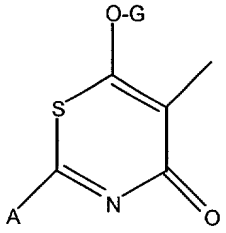
(3),



(4),



(5),



(6),

A represents hydrogen, or represents C_1-C_{12}-alkyl, C_2-C_8-alkenyl, C_1-C_{10}-alkoxy-C_1-C_8-alkyl, poly-C_1-C_8-alkoxy-C_1-C_8-alkyl or C_1-C_{10}-alkylthio-C_1-C_6-alkyl, each of which is optionally substituted by halogen, or represents C_3-C_8-cycloalkyl which is optionally substituted by halogen, C_1-C_6-alkyl or C_1-C_6-alkoxy and in which

one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur, or represents phenyl, naphthyl, phenyl-C_1-C_6-alkyl or hetaryl having 5 or 6 ring atoms and one to three hetero atoms from the series consisting of oxygen, sulphur and nitrogen, in each case optionally substituted by halogen, C_1-C_6-alkyl, C_1-C_6-halogenoalkyl, C_1-C_6-alkoxy, C_1-C_6-halogenoalkoxy, cyano or nitro,

B represents hydrogen, C_1-C_{12}-alkyl or C_1-C_8-alkoxy-C_1-C_6-alkyl, or

A, B and the carbon atom to which they are bonded represent C_3-C_{10}-cycloalkyl or C_5-C_{10}-cycloalkenyl in each of which a methylene group is optionally replaced by oxygen or sulphur and which are optionally substituted by C_1-C_8-alkyl, C_3-C_{10}-cycloalkyl, C_1-C_8-halogenoalkyl, C_1-C_8-alkoxy, C_1-C_8-alkylthio, halogen or phenyl, or

A, B and the carbon atom to which they are bonded represent C_5-C_6-cycloalkyl which is substituted by an alkylenediyl group which optionally contains one or two oxygen and/or sulphur atoms or by and alkylenedioxy or by an alkylenedithioyl group, this group, together with the carbon atom to which it is bonded forming a further five to eight-membered ring, or

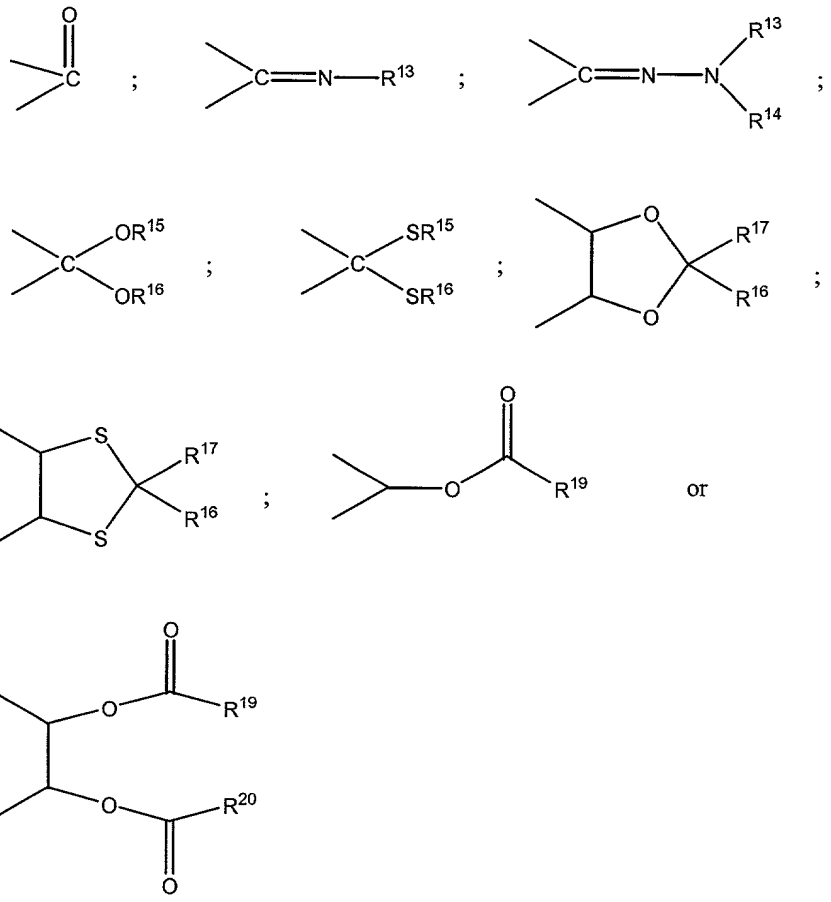
A, B and the carbon atom to which they are bonded represent C_3-C_8-cycloalkyl or C_5-C_8-cycloalkenyl in which two substituents together with the carbon atoms to which they are bonded represent C_3-C_6-alkanediyl, C_3-C_6-alkenediyl or C_4-C_6-alkanedienediyl, each of which is optionally substituted by C_1-C_6-alkyl, C_1-C_6-alkoxy or halogen and in which in each case one methylene group is optionally replaced by oxygen or sulphur,

D represents hydrogen, C_1-C_{12}-alkyl, C_3-C_8-alkenyl, C_3-C_8-alkinyl, C_1-C_{10}-alkoxy-

C_2-C_8-alkyl, poly-C_1-C_8-alkoxy-C_2-C_8-alkyl or C_1-C_{10}-alkylthio-C_2-C_8-alkyl, each of which is optionally substituted by halogen, or represents C_3-C_8-cycloalkyl which is optionally substituted by halogen, C_1-C_4-alkyl, C_1-C_4-alkoxy or C_1-C_4-halogenoalkyl and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur, or represents phenyl, hetaryl having 5 to 6 ring atoms and one or two hetero atoms from the series consisting of oxygen, sulphur and nitrogen, phenyl-C_1-C_6-alkyl or hetaryl-C_1-C_6-alkyl having 5 to 6 ring atoms and one to two hetero atoms from the series consisting of oxygen, sulphur and nitrogen, in each case optionally substituted by halogen, C_1-C_6-alkyl, C_1-C_6-halogenoalkyl, C_1-C_6-alkoxy, C_1-C_6-halogenoalkoxy, cyano or nitro, or

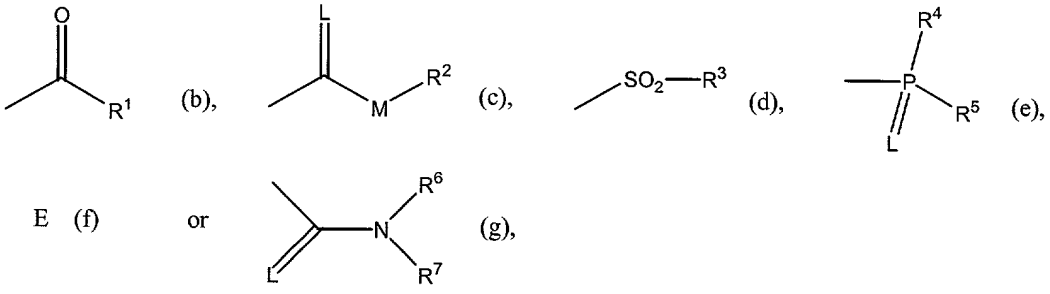
A and D together represent a C_3-C_6-alkanediyl, C_3-C_6-alkenediyl or C_4-C_6-alkanedienediyl group in each of which one methylene group is optionally replaced by oxygen or sulphur and which is in each case optionally substituted by halogen, hydroxyl, mercapto, or by C_1-C_{10}-alkyl, C_1-C_6-alkoxy, C_1-C_6-alkylthio, C_3-C_7-cycloalkyl, phenyl or benzyloxy, each of which is optionally substituted by halogen, or by further C_3-C_6-alkanediyl, C_3-C_6-alkenediyl or C_4-C_6-alkanedienediyl group which forms a fused ring and in each of which one methylene group is optionally replaced by oxygen or sulphur and which is optionally substituted by C_1-C_6-alkyl or in which two adjacent substituents together with the carbon atoms to which they are bonded optionally form a further saturated or unsaturated carbocycle having 5 or 6 ring atoms, or

A and D together represent a C_3-C_6-alkanediyl or C_3-C_6-alkenediyl group each of which one of the following groups



is optionally present;

G **[in the event that Het represents one of the radicals (1), (2), (3), (5) or (6), represents hydrogen (a) or, in the event that Het represents one of the radicals (1), (2), (3), (4), (5) or (6), represents one of the groups]** ***represents hydrogen (a),***



in which

E represents a metal ion equivalent or an ammonium ion,

L represents oxygen or sulphur and

M represents oxygen or sulphur,

R^1 represents C_1-C_{20}-alkyl, C_2-C_{20}-alkenyl, C_1-C_8-alkoxy-C_1-C_8-alkyl, C_1-C_8-alkylthio-C_1-C_8-alkyl or poly-C_1-C_8-alkoxy-C_1-C_8-alkyl, each of which is optionally substituted by halogen, or represents C_3-C_8-cycloalkyl which is optionally substituted by halogen, C_1-C_6-alkyl or C_1-C_6-alkoxy and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur,

or represents phenyl which is optionally substituted by halogen, cyano, nitro, C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_6-halogenoalkyl, C_1-C_6-halogenoalkoxy, C_1-C_6-alkylthio or C_1-C_6-alkylsulphonyl,

or represents phenyl-C_1-C_6-alkyl which is optionally substituted by halogen, nitro, cyano, C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_6-halogenoalkyl or C_1-C_6-halogenoalkoxy,

or represents 5- or 6-membered hetaryl having one or two hetero atoms from the series consisting of oxygen, sulphur and nitrogen which is optionally substituted by halogen or C_1-C_6-alkyl,

or represents phenoxy-C_1-C_6-alkyl which is optionally substituted by halogen or C_1-C_6-alkyl,

or represents 5- or 6-memebered hetaryl-C_1-C_6-alkyl having one or two hetero atoms from the series consisting of oxygen, sulphur and nitrogen which is optionally substituted by halogen, amino or C_1-C_6-alkyl,

R^2 represents C_1-C_{20}-alkyl, C_2-C_{20}-alkenyl, C_1-C_8-alkoxy-C_2-C_8-alkyl or poly-C_1-C_8-alkoxy-C_2-C_8-alkyl, each of which is optionally substituted by halogen,

or represents C_3-C_8-cycloalkyl which is optionally substituted by halogen, C_1-C_6-alkyl or C_1-C_6-alkoxy, or

represents phenyl or benzyl, each of which is optionally substituted by halogen, cyano, nitro, C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_6-halogenoalkyl, C_1-C_6-halogenoalkoxy,

R^3 represents C_1-C_8-alkyl which is optionally substituted by halogen, or represents phenyl or benzyl, each of which is optionally substituted by halogen, C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_4-halogenoalkyl, C_1-C_4-halogenoalkoxy, cyano or nitro,

R^4 and R^5 independently of one another represent C_1-C_8-alkyl, C_1-C_8-alkoxy, C_1-C_8-alkylamino, di-(C_1-C_8-alkyl)amino, C_1-C_8-alkylthio or C_2-C_8-alkenylthio, each of which is optionally substituted by halogen, or represent phenyl, phenoxy or phenylthio, each of which is optionally substituted by halogen, nitro, cyano, C_1-C_4-alkoxy, C_1-C_4-halogenoalkoxy, C_1-C_4-alkylthio, C_1-C_4-halogenoalkylthio, C_1-C_4-alkyl or C_1-C_4-halogenoalkyl,

R^6 and R^7 independently of one another represent hydrogen, or represent C_1-C_8-alkyl, C_3-C_8-cycloalkyl, C_1-C_8-alkoxy, C_3-C_8-alkenyl or C_1-C_8-alkoxy-C_2-C_8-alkyl, each of which is optionally substituted by halogen, or represent phenyl or benzyl, each of

which is optionally substituted by halogen, C_1-C_8-alkyl, C_1-C_8-halogenoalkyl or C_1-C_8-alkoxy, or together represent a C_3-C_6-alkylene radical which is optionally substituted by C_1-C_6-alkyl and in which one methylene groups is optionally replaced by oxygen or sulphur,

R^{13} represents hydrogen, or represents C_1-C_8-alkyl or C_1-C_8-alkoxy, each of which is optionally substituted by halogen, or represents C_3-C_8-cycloalkyl which is optionally substituted by halogen, C_1-C_4-alkyl or C_1-C_4-alkoxy and in which one methylene group is optionally replaced by oxygen or sulphur, or represents phenyl, phenyl-C_1-C_4-alkyl or phenyl-C_1-C_4-alkoxy, each of which is optionally substituted by halogen, C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_4-halogenoalkyl, C_1-C_4-halogenoalkoxy, nitro or cyano,

R^{14} represents hydrogen or C_1-C_8-alkyl or

R^{13} and R^{14} together represent C_4-C_6-alkanediyl,

R^{15} and R^{16} are identical or different and represent C_1-C_6-alkyl or

R^{15} and R^{16} together represent a C_2-C_4-alkanediyl radical which is optionally substituted by C_1-C_6-alkyl or by phenyl which is optionally substituted by halogen, C_1-C_4-alkyl, C_1-C_4-halogenoalkyl, C_1-C_4-alkoxy, C_1-C_4-halogenoalkoxy, nitro or cyano,

R^{17} and R^{18} independently of one another represent hydrogen, or represent C_1-C_8-alkyl which is optionally substituted by halogen, or represent phenyl which is optionally substituted by halogen, C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_4-halogenoalkyl, C_1-C_4-halogenoalkoxy, nitrogen or cyano, or

R^{17} and R^{18} together with the carbon atom to which they are bonded represent C_5-C_7-

cycloalkyl which is optionally substituted by C_1-C_4-alkyl or C_1-C_4-alkoxy and in which one methylene group is optionally replaced by oxygen or sulphur and

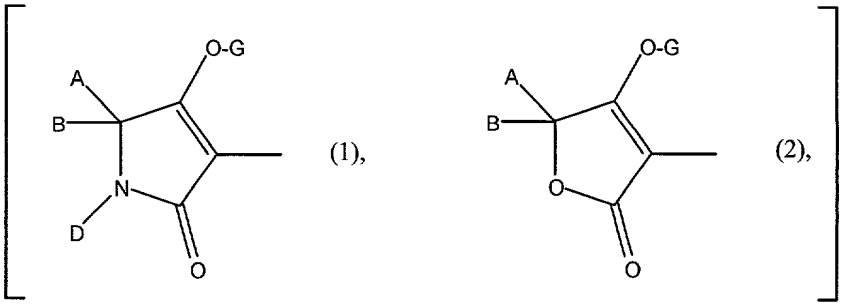
R^{19} and R^{20} independently of one another represent C_1-C_{10}-alkyl, C_2-C_{10}-alkenyl, C_1-C_{10}-alkoxy, C_1-C_{10}-alkylamino, C_3-C_{10}-alkenylamino, di-(C_1-C_{10}-alkyl)amino or di-(C_3-C_{10}-alkenyl)amino.

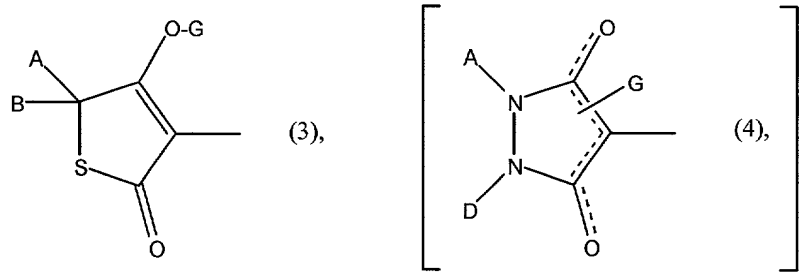
3. Compound of the formula (I) according to claim 1 in which

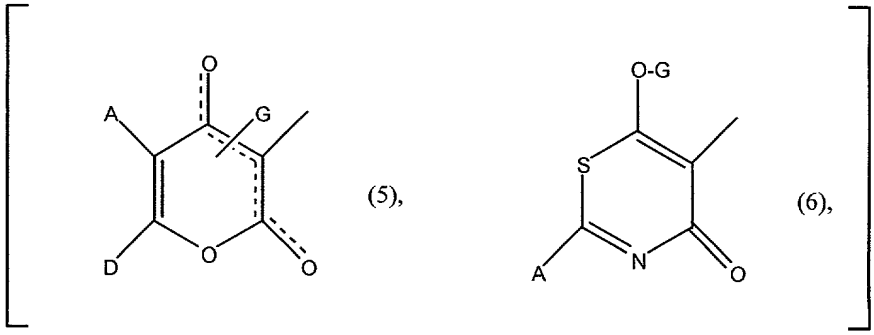
X represents fluorine, chlorine or bromine,
Y represents fluorine, chlorine, bromine or C_1-C_4-alkyl,
Z represents fluorine, chlorine, bromine or C_1-C_4-alkyl,

where always one of the substituents Y and Z represent halogen, while the other represents alkyl,

Het represents **[one of the groups]**







A represents hydrogen, or represents C_1-C_{10}-alkyl, C_2-C_6-alkenyl, C_1-C_8-alkoxy-C_1-C_6-alkyl, poly-C_1-C_6-alkoxy-C_1-C_6-alkyl or C_1-C_8-alkylthio-C_1-C_6-alkyl, each of which is optionally substituted by fluorine or chlorine, or represents C_3-C_7-cycloalkyl which is optionally substituted by fluorine, chlorine, C_1-C_4-alkyl or C_1-C_4-alkoxy and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur, or represents phenyl, furanyl, pyridyl, imidazolyl, triazolyl, pyrazolyl, indolyl, thiazolyl, thienyl or phenyl-C_1-C_4-alkyl each of which is optionally substituted by fluorine, chlorine, bromine, C_1-C_4-alkyl, C_1-C_4-halogenoalkyl, C_1-C_4-alkoxy, C_1-C_4-halogenoalkoxy,

cyano or nitro,

B represents hydrogen, C_1-C_{10}-alkyl or C_1-C_6-alkoxy-C_1-C_4-alkyl, or

A, B and the carbon atom to which they are bonded represent C_3-C_8-cycloalkyl or C_5-C_8-cycloalkenyl in each of which a methylene group is optionally replaced by oxygen or sulphur and which are optionally substituted by C_1-C_6-alkyl, C_3-C_8-cycloalkyl, C_1-C_3-halogenoalkyl, C_1-C_6-alkoxy, C_1-C_6-alkylthio, fluorine, chlorine or phenyl, or

A, B and the carbon atom to which they are bonded represent C_5-C_6-cycloalkyl which is substituted by an alkylenediyl group which optionally contains one or two oxygen and/or sulphur atoms or by and alkylenedioxy or by an alkylenedithioyl group, this group, together with the carbon atom to which it is bonded forming a further five to seven-membered ring, or

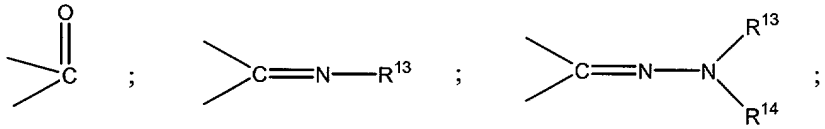
A, B and the carbon atom to which they are bonded represent C_3-C_6-cycloalkyl or C_5-C_6-cycloalkenyl in which two substituents together with the carbon atoms to which they are bonded represent C_3-C_5-alkanediyl, C_3-C_5-alkenediyl or butadienediyl, each of which is optionally substituted by C_1-C_5-alkyl, C_1-C_5-alkoxy, fluorine, chlorine or bromine and in which in each case one methylene group is optionally replaced by oxygen or sulphur,

D represents hydrogen, C_1-C_{10}-alkyl, C_3-C_6-alkenyl, C_3-C_6-alkinyl, C_1-C_8-alkoxy-C_2-C_6-alkyl, poly-C_1-C_6-alkoxy-C_2-C_6-alkyl or C_1-C_8-alkylthio-C_2-C_6-alkyl, each of which is optionally substituted by fluorine or chlorine, or represents C_3-C_7-cycloalkyl which is optionally substituted by fluorine, chlorine, C_1-C_4-alkyl, C_1-C_4-alkoxy or C_1-C_2-halogenoalkyl and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur,

or represents phenyl, furanyl, imidazolyl, pyridyl, thiazolyl, pyrazolyl, pyrimidyl, pyrrolyl, thienyl, triazolyl or phenyl-C_1-C_4-alkyl each of which is optionally substituted by fluorine, chlorine, bromine, C_1-C_4-alkyl, C_1-C_4-halogenoalkyl, C_1-C_4-alkoxy, C_1-C_4-halogenoalkoxy, cyano or nitro, or

A and D together represent a C_3-C_5-alkanediyl or C_3-C_5-alkenediyl group in each of which one methylene group is optionally replaced by oxygen or sulphur and which is in each case optionally substituted by fluorine, chlorine, hydroxyl, mercapto, or by C_1-C_6-alkyl, C_1-C_4-alkoxy, C_1-C_4-alkylthio, C_3-C_6-cycloalkyl, phenyl or benzyloxy, each of which is optionally substituted by fluorine or chlorine, or

in which in each case one of the following groups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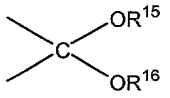
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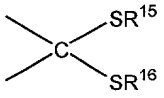
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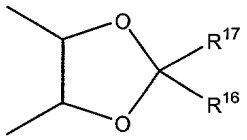
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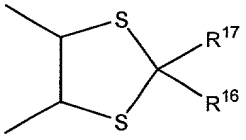
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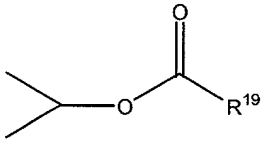
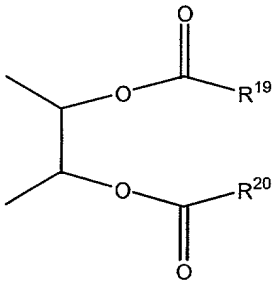
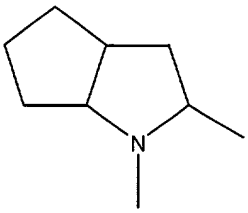

or

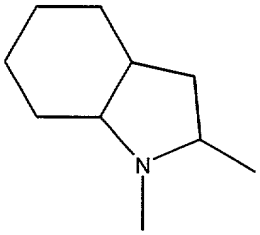


is optionally present;

or A and D (in the case of the compounds of formula (I-1)) together with the atoms to which they are bonded represent one of the groups AD-1 to AD-27



AD-1



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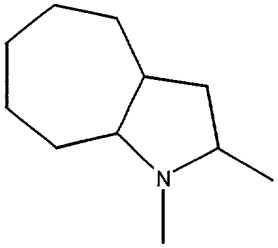

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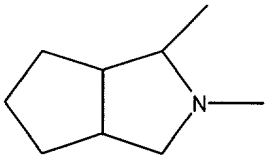

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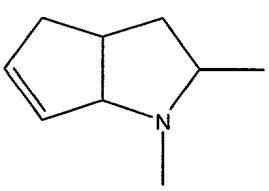

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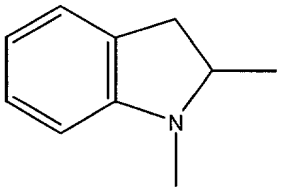

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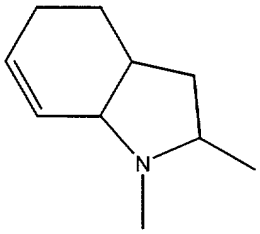

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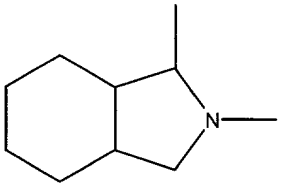

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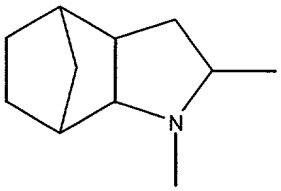

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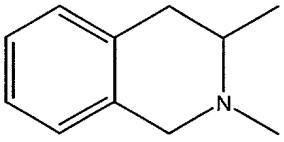

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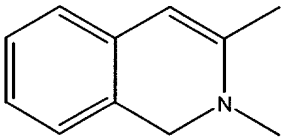

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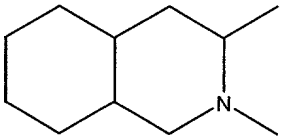

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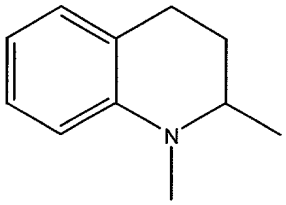

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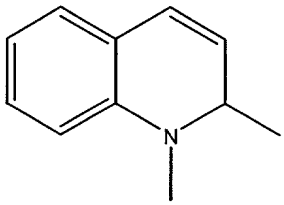

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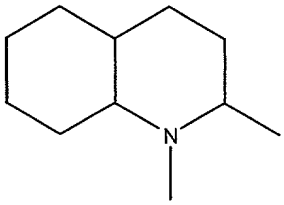

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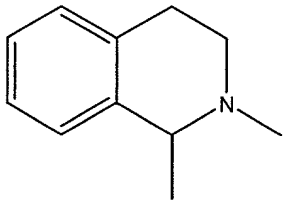

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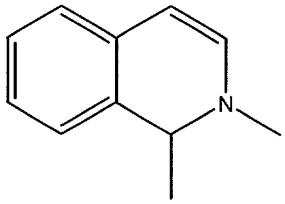

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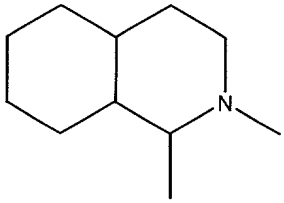

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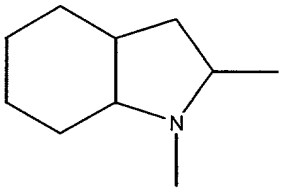

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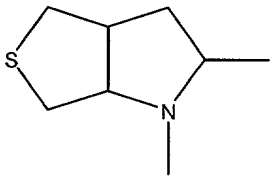

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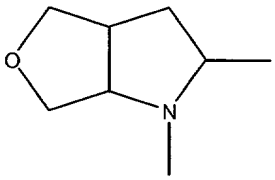

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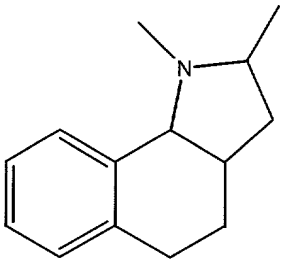

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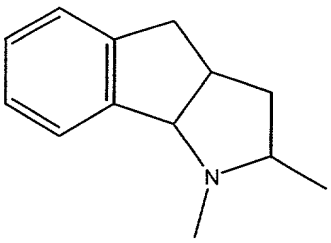

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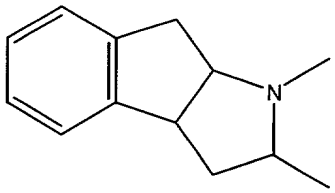

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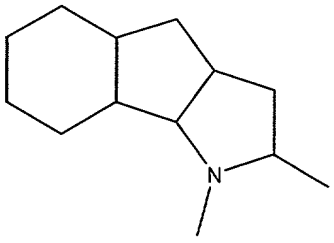

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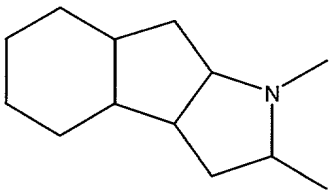

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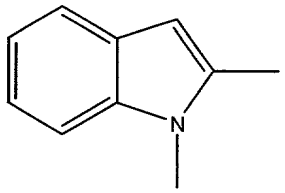
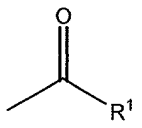
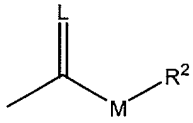


AD-27

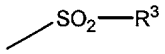
G **[in the event that Het represents one of the radicals (1), (2), (3), (5) or (6), represents hydrogen (a) or, in the event that Het represents one of the radicals (1), (2), (3), (4), (5) or (6), represents one of the groups]** ***represents hydrogen (a),***



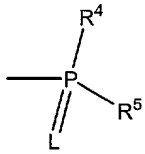
(b),



(c),

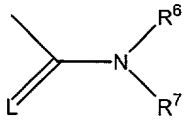


(d),



(e),

E (f) or



(g),

in which

E represents a metal ion equivalent or an ammonium ion,

L represents oxygen or sulphur and

M represents oxygen or sulphur,

R^1 represents C_1-C_{16}-alkyl, C_2-C_{16}-alkenyl, C_1-C_6-alkoxy-C_1-C_6-alkyl, C_1-C_6-alkylthio-C_1-C_6-alkyl or poly-C_1-C_6-alkoxy-C_1-C_6-alkyl, each of which is optionally substituted by fluorine or chlorine, or represents C_3-C_7-cycloalkyl which is optionally substituted by fluorine, chlorine, C_1-C_5-alkyl or C_1-C_5-alkoxy and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur,

or represents phenyl which is optionally substituted by fluorine, chlorine, bromine, cyano, nitro, C_1-C_4-alkyl, C_1-C_4-alkoxy, C_1-C_3-halogenoalkyl, C_1-C_3-halogenoalkoxy, C_1-C_4-alkylthio or C_1-C_4-alkylsulphonyl,

or represents phenyl-C_1-C_4-alkyl which is optionally substituted by fluorine, chlorine, bromine, nitro, cyano, C_1-C_4-alkyl, C_1-C_4-alkoxy, C_1-C_3-halogenoalkyl or C_1-C_3-halogenoalkoxy,

or represents pyrazolyl, thiazolyl, pyridyl, pyrimidyl, furanyl or thienyl, each of which is optionally substituted by fluorine, chlorine, bromine or C_1-C_4-alkyl,

or represents phenoxy-C_1-C_5-alkyl which is optionally substituted by fluorine, chlorine, bromine or C_1-C_4-alkyl,

or represents pyridyloxy-C_1-C_5-alkyl, pyrimidyloxy-C_1-C_5-alkyl or thiazolyloxy-C_1-C_5-alkyl, each of which is optionally substituted by fluorine, chlorine, bromine, amino or C_1-C_4-alkyl,

R^2 represents C_1-C_{16}-alkyl, C_2-C_{16}-alkenyl, C_1-C_6-alkoxy-C_2-C_6-alkyl or poly-C_1-C_6-alkoxy-C_2-C_6-alkyl, each of which is optionally substituted by fluorine or chlorine,

or represents C_3-C_7-cycloalkyl which is optionally substituted by fluorine, chlorine, C_1-C_4-alkyl or C_1-C_4-alkoxy, or

represents phenyl or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, cyano, nitro, C_1-C_3-alkyl, C_1-C_3-alkoxy, C_1-C_3-halogenoalkyl, C_1-C_3-halogenoalkoxy,

R^3 represents C_1-C_6-alkyl which is optionally substituted by fluorine or chlorine, or represents phenyl or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, C_1-C_5-alkyl, C_1-C_5-alkoxy, C_1-C_3-halogenoalkyl, C_1-C_3-halogenoalkoxy, cyano or nitro,

R^4 and R^5 independently of one another represent C_1-C_6-alkyl, C_1-C_6-alkoxy, C_1-C_6-alkylamino, di-(C_1-C_6-alkyl)amino, C_1-C_6-alkylthio or C_3-C_4-alkenylthio, each of which is optionally substituted by fluorine or chlorine, or represent phenyl, phenoxy or phenylthio, each of which is optionally substituted by fluorine, chlorine, bromine, nitro, cyano, C_1-C_3-alkoxy, C_1-C_3-halogenoalkoxy, C_1-C_3-alkylthio, C_1-C_3-halogenoalkylthio, C_1-C_3-alkyl or C_1-C_3-halogenoalkyl,

R^6 and R^7 independently of one another represent hydrogen, or represent C_1-C_6-alkyl, C_3-C_6-cycloalkyl, C_1-C_6-alkoxy, C_3-C_6-alkenyl or C_1-C_6-alkoxy-C_2-C_6-alkyl, each of which is optionally substituted by fluorine or chlorine, or represent phenyl or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, C_1-C_5-alkyl, C_1-C_5-halogenoalkyl or C_1-C_5-alkoxy, or together represent a C_3-C_6-alkylene radical which is optionally substituted by C_1-C_4-alkyl and in which one methylene groups is optionally replaced by oxygen or sulphur,

R^{13} represents hydrogen, or represents C_1-C_6-alkyl or C_1-C_6-alkoxy, each of which is optionally substituted by fluorine or chlorine, or represents C_3-C_7-cycloalkyl which is optionally substituted by fluorine, C_1-C_2-alkyl or C_1-C_2-alkoxy and in which one methylene group is optionally replaced by oxygen or sulphur, or represents phenyl, phenyl-C_1-C_3-alkyl or phenyl-C_1-C_2-alkoxy, each of which is optionally substituted by fluorine, chlorine, bromine, C_1-C_5-alkyl, C_1-C_5-alkoxy, C_1-C_2-halogenoalkyl, C_1-C_2-halogenoalkoxy, nitro or cyano,

R^{14} represents hydrogen or C_1-C_6-alkyl or

R^{13} and R^{14} together represent C_4-C_6-alkanediyl,

R^{15} and R^{16} are identical or different and represent C_1-C_4-alkyl or

R^{15} and R^{16} together represent a C_2-C_3-alkanediyl radical which is optionally substituted by C_1-C_4-alkyl or by phenyl which is optionally substituted by fluorine, chlorine, bromine, C_1-C_2-alkyl, C_1-C_2-halogenoalkyl, C_1-C_2-alkoxy, C_1-C_2-halogenoalkoxy, nitro or cyano,

R^{17} and R^{18} independently of one another represent hydrogen, or represent C_1-C_8-alkyl which is optionally substituted by fluorine or chlorine, or represent phenyl which is optionally substituted by fluorine, chlorine, bromine, C_1-C_4-alkyl, C_1-C_4-alkoxy, C_1-C_2-halogenoalkyl, C_1-C_2-halogenoalkoxy, nitrogen or cyano, or

R^{17} and R^{18} together with the carbon atom to which they are bonded represent C_5-C_6-cycloalkyl which is optionally substituted by C_1-C_3-alkyl or C_1-C_3-alkoxy and in which one methylene group is optionally replaced by oxygen or sulphur and

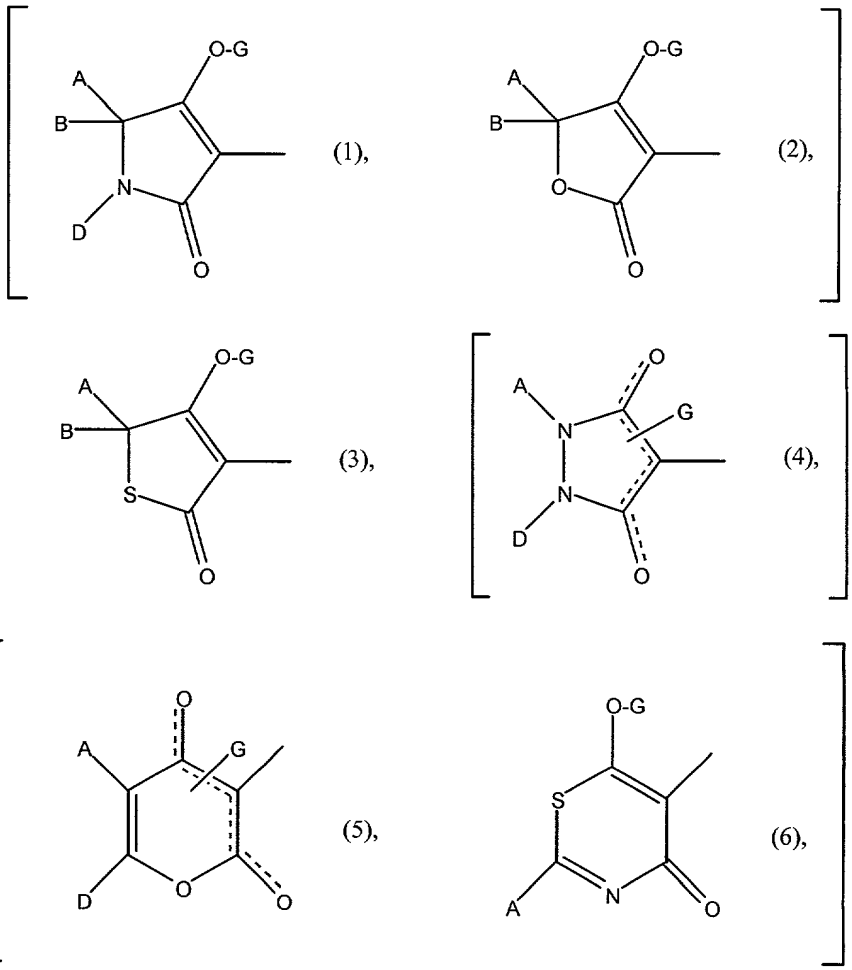
R^{19} and R^{20} independently of one another represent C_1-C_6-alkyl, C_2-C_6-alkenyl, C_1-C_6-alkoxy, C_1-C_6-alkylamino, C_3-C_6-alkenylamino, di-(C_1-C_6-alkyl)amino or di-(C_3-C_6-alkenyl)amino.

4. Compound of the formula (I) according to claim 1 in which

X represents fluorine, chlorine or bromine,
Y represents fluorine, chlorine, bromine, methyl, ethyl, n-propyl or iso-propyl,
Z represents fluorine, chlorine, bromine, methyl, ethyl, n-propyl or iso-propyl,

where always one of the substituents Y and Z represent halogen, while the other represents alkyl,

Het represents **[one of the groups]**



A represents hydrogen, or represents C_1-C_8-alkyl, C_2-C_6-alkenyl, C_1-C_6-alkoxy-C_1-C_4-alkyl, poly-C_1-C_4-alkoxy-C_1-C_4-alkyl or C_1-C_6-alkylthio-C_1-C_4-alkyl, each of which is optionally substituted by fluorine or chlorine, or represents C_3-C_6-cycloalkyl which is optionally substituted by fluorine, chlorine, methyl or methoxy and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur, or represents phenyl, pyridyl or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, methyl, ethyl, n-propyl, iso-propyl, methoxy, ethoxy, trifluoromethyl,

trifluoromethoxy, cyano or nitro,

B represents hydrogen, C_1-C_8-alkyl or C_1-C_4-alkoxy-C_1-C_2-alkyl, or

A, B and the carbon atom to which they are bonded represent C_3-C_8-cycloalkyl or C_5-C_8-cycloalkenyl in each of which a methylene group is optionally replaced by oxygen or sulphur and which are optionally substituted by methyl, ethyl, n-propyl, iso-propyl, butyl, iso-butyl, sec-butyl, tert-butyl, cyclohexyl, trifluoromethyl, methoxy, ethoxy, n-propoxy, iso-propoxy, butoxy, iso-butoxy, sec-butoxy, tert-butoxy, methylthio, ethylthio, fluorine, chlorine or phenyl, or

A, B and the carbon atom to which they are bonded represent C_5-C_6-cycloalkyl which is substituted by an alkylenediyl group which optionally contains one or two oxygen and/or sulphur atoms or by and alkylenedioxy group, this alkylenediyl or alkylenedioxy group together with the carbon atom to which it is bonded forming a further five to six-membered ring, or

A, B and the carbon atom to which they are bonded represent C_3-C_6-cycloalkyl or C_5-C_6-cycloalkenyl in which two substituents together with the carbon atoms to which they are bonded represent C_3-C_4-alkanediyl, C_3-C_4-alkenediyl or butadienediyl, in each case one methylene group is optionally replaced by oxygen or sulphur,

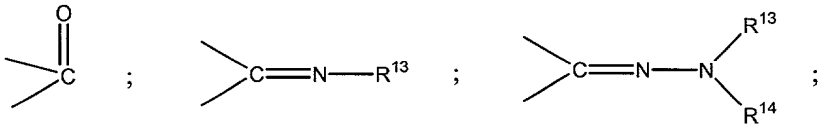
D represents hydrogen, C_1-C_8-alkyl, C_3-C_4-alkenyl, C_3-C_4-alkinyl, C_1-C_6-alkoxy-C_2-C_4-alkyl, poly-C_1-C_4-alkoxy-C_2-C_4-alkyl or C_1-C_4-alkylthio-C_2-C_4-alkyl or C_3-C_6-cycloalkyl in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur, in each case optionally substituted by fluorine or chlorine, or represents phenyl, furanyl, pyridyl, thienyl, or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine,

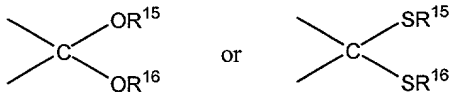
methyl, ethyl, n-propyl, iso-propyl, methoxy, ethoxy, trifluoromethyl, trifluoromethoxy, cyano or nitro,

or

A and D together represent a C_3-C_5-alkanediyl or C_3-C_5-alkenediyl group in each of which one methylene group is optionally replaced by oxygen or sulphur and which are optionally substituted by fluorine, chlorine, hydroxyl, mercapto, or by C_1-C_6-alkyl, C_1-C_4-alkoxy, C_1-C_4-alkylthio, C_3-C_6-cycloalkyl, phenyl or benzyloxy, each of which is optionally substituted by fluorine or chlorine, or

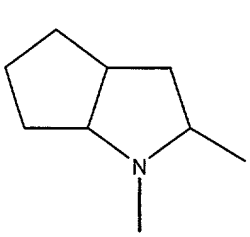
in which in each case one of the following groups



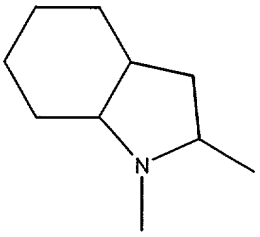


is optionally present;

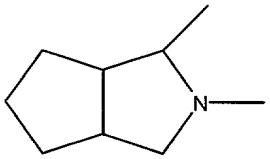
or A and D (in the case of the compounds of formula (I-1)) together with the atoms to which they are bonded represent one of the following groups:



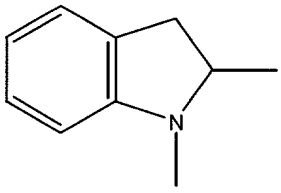
AD-1



AD-2



AD-4



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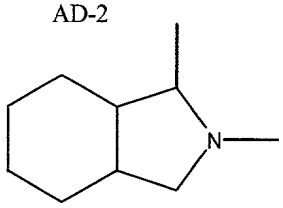
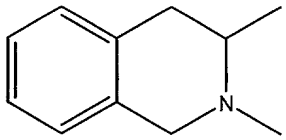


AD-8



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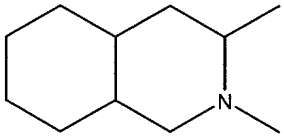
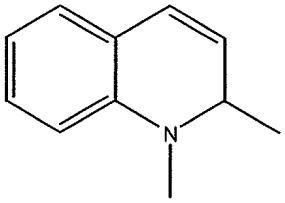
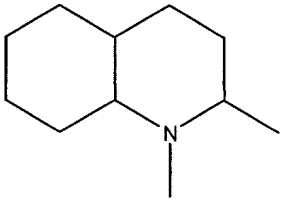


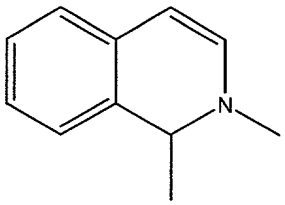
AD-12



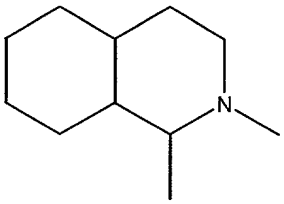
AD-14



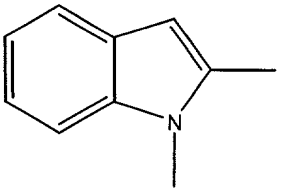
AD-15



AD-17

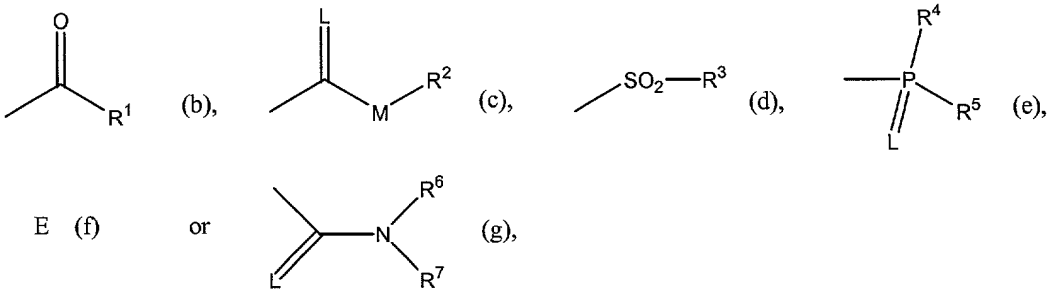


AD-18



AD-27

G **[in the event that Het represents one of the radicals (1), (2), (3), (5) or (6), represents hydrogen (a) or, in the event that Het represents one of the radicals (1), (2), (3), (4), (5) or (6), represents one of the groups]** ***represents hydrogen (a),***



(b), (c), (d), (e),

E (f) or (g),

in which

E represents a metal ion equivalent or an ammonium ion,

L represents oxygen or sulphur and

M represents oxygen or sulphur,

R^1 represents C_1-C_{14}-alkyl, C_2-C_{14}-alkenyl, C_1-C_4-alkoxy-C_1-C_6-alkyl, C_1-C_4-alkylthio-C_1-C_6-alkyl or poly-C_1-C_4-alkoxy-C_1-C_4-alkyl, each of which is optionally substituted by fluorine or chlorine, or represents C_3-C_6-cycloalkyl which is optionally substituted by fluorine, chlorine, methyl, ethyl, n-propyl, iso-propyl, b-butyl, i-butyl, tert-butyl, methoxy, ethoxy, n-propoxy or iso-propoxy and in which one or two methylene groups which are not directly adjacent are optionally replaced by oxygen and/or sulphur,

or represents phenyl which is optionally substituted by fluorine, chlorine, bromine, cyano, nitro, methyl, ethyl, n-propyl, i-propyl, methoxy, ethoxy, trifluoromethyl, trifluoromethoxy, methylthio, ethylthio, methylsulphonyl or ethylsulphonyl,

or represents benzyl which is optionally substituted by fluorine, chlorine, bromine, methyl, ethyl, n-propyl, i-propyl, methoxy, ethoxy, trifluoromethyl or trifluoromethoxy,

or represents furanyl, thienyl or pyridyl, each of which is optionally substituted by fluorine, chlorine, bromine, methyl or ethyl,

or represents phenoxy-C_1-C_4-alkyl which is optionally substituted by fluorine, chlorine, methyl or ethyl, or

represents pyridyloxy-C_1-C_4-alkyl, pyrimidyloxy-C_1-C_4-alkyl or thiazolyloxy-C_1-C_4-alkyl, each of which is optionally substituted by fluorine, chlorine, bromine, methyl or ethyl,

R^2 represents C_1-C_{14}-alkyl, C_2-C_{14}-alkenyl, C_1-C_4-alkoxy-C_2-C_6-alkyl or poly-C_1-C_4-alkoxy-C_2-C_6-alkyl, each of which is optionally substituted by fluorine or chlorine,

or represents C_3-C_6-cycloalkyl which is optionally substituted by fluorine, chlorine, cyano, nitro, methyl, ethyl, n-propyl, iso-propyl or methoxy, ethoxy, trifluoromethyl or trifluoromethoxy, or

represents phenyl or benzyl, each of which is optionally substituted by fluorine, chlorine, methyl, ethyl, n-propyl, iso-propyl or methoxy, cyano, nitro, ethoxy, trifluoromethyl or trifluoromethoxy,

R^3 represents methyl, ethyl, propyl or isopropyl, each of which is optionally substituted by fluorine or chlorine, or represents phenyl or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, methyl, ethyl, propyl, iso-propyl, tert-butyl, methoxy, ethoxy, isopropoxy, tert-butoxy, trifluoromethyl, trifluoromethoxy, cyano or nitro,

R^4 and R^5 independently of one another represent C_1-C_4-alkyl, C_1-C_4-alkoxy, C_1-C_4-alkylamino, di-(C_1-C_4-alkyl)amino or C_1-C_4-alkylthio, each of which is optionally substituted by fluorine or chlorine, or represent phenyl, phenoxy or phenylthio, each of which is optionally substituted by fluorine, chlorine, bromine, nitro, cyano, methyl, methoxy, trifluoromethyl or trifluoromethoxy,

R^6 and R^7 independently of one another represent hydrogen, or represent C_1-C_4-alkyl, C_3-C_6-cycloalkyl, C_1-C_4-alkoxy, C_3-C_4-alkenyl or C_1-C_4-alkoxy-C_2-C_4-alkyl, each of which is optionally substituted by fluorine or chlorine, or represent phenyl or benzyl, each of which is optionally substituted by fluorine, chlorine, bromine, methyl, methoxy or trifluoromethyl, or together represent a C_5-C_6-alkylene radical which is optionally substituted by methyl or ethyl and in which one methylene groups is optionally replaced by oxygen or sulphur,

R^{13} represents hydrogen, or represents C_1-C_4-alkyl or C_1-C_4-alkoxy, each of which is optionally substituted by fluorine or chlorine, or represents C_3-C_6-cycloalkyl which is optionally substituted by fluorine or chlorine, or represents C_3-C_6-cycloalkyl, or represents phenyl, phenyl-C_1-C_2-alkyl or benzyloxy, each of which is optionally substituted by fluorine, chlorine, bromine, methyl, ethyl, iso-propyl, tert-butyl, methoxy, ethoxy, iso-propoxy, tert-butoxy, trifluoromethyl, trifluoromethoxy, nitro or cyano,

R^{14} represents hydrogen or C_1-C_4-alkyl, or

R^{13} and R^{14} together represent C_4-C_6-alkanediyl,

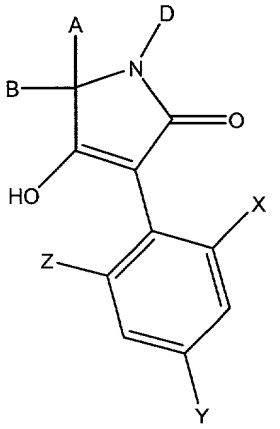
R^{15} and R^{16} are identical or different and represent methyl or ethyl, or

R^{15} and R^{16} together represent a C_2-C_3-alkanediyl radical which is optionally substituted

by methyl, ethyl, n-propyl, iso-propyl, n-butyl, iso-butyl, sec-butyl or tert-butyl, or by phenyl which is optionally substituted by fluorine, chlorine, methoxy, trifluoromethyl, trifluoromethoxy, nitro or cyano.

5. Process for the preparation of compounds of the formula (I) according to Claim 1, characterized in that

(A) compounds of the formula (I-1-a)



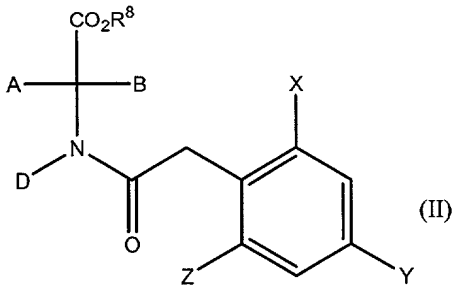
(I-1-a)

in which

A, B, D, X, Y and Z have the abovementioned meanings,

are obtained when

compounds of the formula (II)



(II)

in which

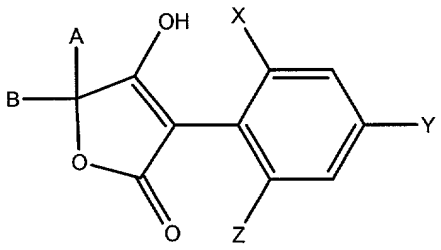
A, B, D, X, Y and Z have the abovementioned meanings,

and

R^8 represent alkyl,

are subjected to intramolecular condensation in the presence of a diluent and in the presence of a base,

(B) compounds of the formula (I-2-a)



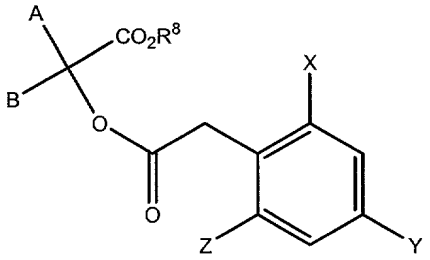
(I-2-a)

in which

A, B, X, Y and Z have the abovementioned meanings,

are obtained when

compounds of the formula (III)



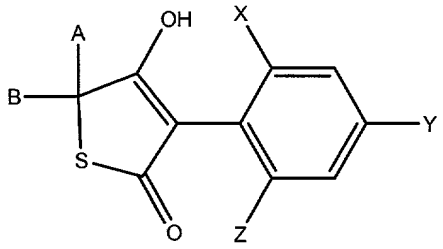
(III)

in which

A, B, X, Y, Z and R^8 have the abovementioned meanings,

are subjected to intramolecular condensation in the presence of a diluent and in the presence of a base,

(C) compounds of the formula (I-3-a)



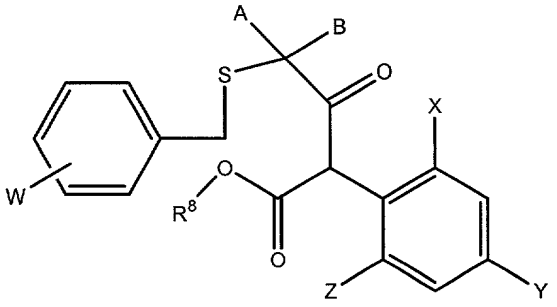
(I-3-a)

in which

A, B, X, Y and Z have the abovementioned meanings,

are obtained when

compounds of the formula (IV)



(IV)

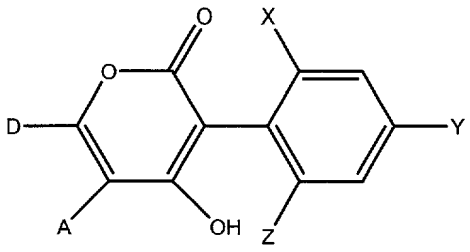
in which

A, B, X, Y, Z and R^8 have the abovementioned meanings and

W represents hydrogen, halogen, alkyl or alkoxy,

are subjected to intramolecular cyclization, if appropriate in the presence of a diluent and in the presence of an acid,

(E) compound of the formula (I-5-a)



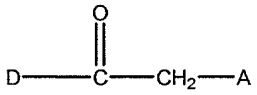
(I-5-a)

in which

A, D, X, Y and Z have the abovementioned meanings,

are obtained when

compounds of the formula (VIII)

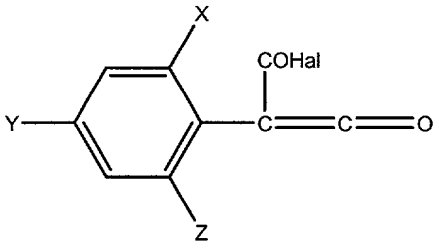


(VIII)

in which

A and D have the abovementioned meanings,

are reacted with compounds of the formula (V)



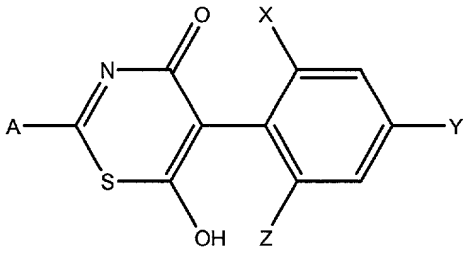
(V)

in which

X, Y and Z have the abovementioned meanings and
Hal represents halogen,

if appropriate in the presence of a diluent and if appropriate in the presence of an acid acceptor,

(F) the compounds of the formula (I-6-a)

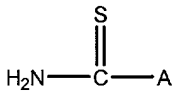


(I-6-a)

in which

A, X, Y and Z have the abovementioned meanings,

are obtained when compounds of the formula (IX)

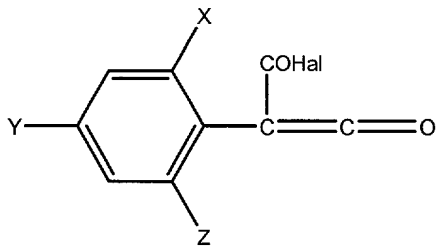


(IX)

in which

A has the abovementioned meaning,

are reacted with compounds of the formula (V)



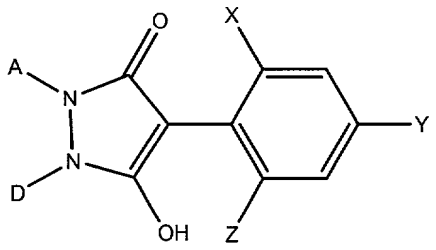
(V)

in which

Hal, X, Y and Z have the abovementioned meanings,

if appropriate in the presence of a diluent and if appropriate in the presence of an acid acceptor,

and, if appropriate, the resulting compounds of the formulae (I-1-a), (I-2-a) to (I-3-a), (I-5-a) and (I-6-a), or compounds of the formula (I-4-a)

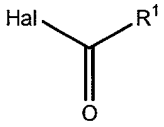


(I-4-a)

in which

A, D, X, Y and Z have the abovementioned meanings, are in each case reacted

(G) α) with acid halides of the formula (X)



(X)

in which

R^1 has the abovementioned meaning and

Hal represents halogen

or

β) with carboxylic anhydrides of the formula (XI)

$$R^1\text{-CO-O-CO-}R^1 \qquad \text{(XI)}$$

in which

R^1 has the abovementioned meaning,

if appropriate in the presence of a diluent and if appropriate in the presence of an acid-binding agent,

or

(H) are reacted with chloroformic esters or chloroformic thioesters of the formula (XII)

$$R^2\text{-M-CO-Cl} \qquad \text{(XII)}$$

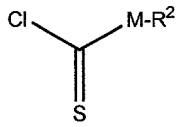
in which

R^2 and M have the abovementioned meanings,

if appropriate in the presence of a diluent and if appropriate in the presence of an acid-binding agent,

or

(I) α) are reacted with chloromonothioformic esters or chlorodithioformic esters of the formula (XIII)



(XIII)

in which

M and R^2 have the abovementioned meanings,

if appropriate in the presence of a diluent and if appropriate in the presence of an acid-binding agent,

or

β) are reacted with carbon disulphide and subsequently with compounds of the formula (XIV)

$$R^2\text{-Hal} \qquad \text{(XIV)}$$

in which

R^2 has the abovementioned meanings and
Hal represents chlorine, bromine or iodine,

if appropriate in the presence of a diluent and if appropriate in the presence

of a base,

or

(J) are reacted with sulphonyl chlorides of the formula (XV)

$$R^3\text{-}SO_2\text{-}Cl \qquad (XV)$$

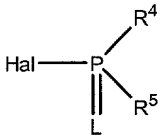
in which

R^3 has the abovementioned meaning,

if appropriate in the presence of a diluent and if appropriate in the presence of an acid-binding agent,

or

(K) are reacted with phosphorus compounds of the formula (XVI)



(XVI)

in which

L, R^4 and R^5 have the abovementioned meanings and

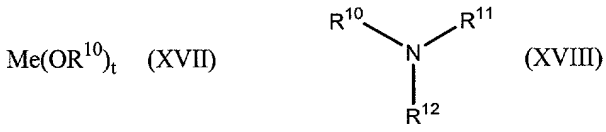
Hal represents halogen,

if appropriate in the presence of a diluent and if appropriate in the presence of an

acid-binding agent,

or

(L) are reacted with metal compounds or amines of the formulae (XVII) or (XVIII)



$Me(OR^{10})_t$ (XVII) (XVIII)

in which

Me represents a mono- or divalent metal,

t represents the number 1 or 2 and

R^{10}, R^{11} and R^{12} independently of one another represent hydrogen or alkyl,

if appropriate in the presence of a diluent,

or

(M) α) are reacted with isocyanates or isothiocyanates of the formula (XIX)

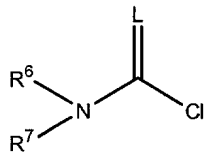
$$R^6\text{-}N{=}C{=}L \qquad \text{(XIX)}$$

in which

R^6 and L have the abovementioned meanings,

if appropriate in the presence of a diluent and if appropriate in the presence of a catalyst, or

β) are reacted with carbamoyl chlorides or thiocarbamoyl chlorides of the formula (XX)



(XX)

in which

L, R^6 and R^7 have the abovementioned meanings,

if appropriate in the presence of a diluent and if appropriate in the presence of an acid-binding agent.

22. A pesticidal composition comprising a pesticidally effective amount of at least one compound according to claim 1 and an extender or surface-active agent or mixture thereof.

23. A herbicidal composition comprising a herbicidally effective amount of at least one compound according to claim 1 and an extender or surface-active agent or mixture thereof.

24. A method of combatting pests comprising applying to pests and/or their environment a pesticidally effective amount of at least one compound according to claim 1.

25. A method of combatting weeds comprising applying to weeds and/or their environment a herbicidally effective amount of at least one compound according to claim 1.

26. A process for preparing a pesticidal composition or a herbicidal composition, said process comprising mixing an effective amount therefor of at least one compound according to claim 1 with an extender or surface-active agent or mixture thereof.